

# ANNUAL PUBLIC HEALTH REPORT

OF THE

## PROVINCE OF BIHAR

FOR THE YEAR

### 1936

AND THE

## ANNUAL VACCINATION REPORT

FOR THE YEAR

### 1936-37

---

BY

Lt.-Col. S. L. MITRA, D.P.H., I.M.S.,

*Director of Public Health, Bihar.*



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BIHAR, PATNA.

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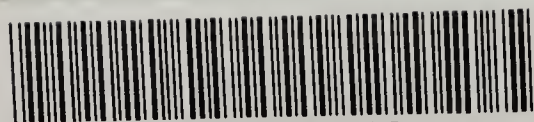
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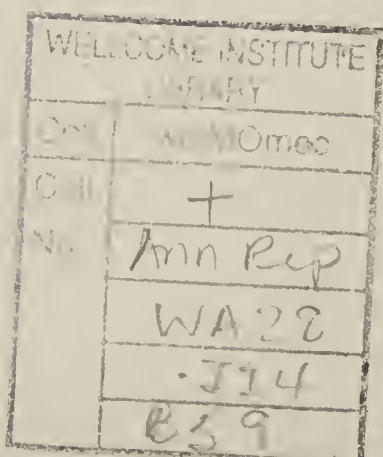
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# PROVINCE OF BIHAR

Scale 1 Inch = 64 Miles



Drawn & Zincographed in the Bihar Survey Office, Qulzarbagh, Patna.





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### CHAPTER I.

#### METEOROLOGY, PRICES OF GRAINS, ETC.

1. *Rainfall*.—The following short account of the meteorological conditions in the province during the year 1936 is taken from the report of the Director-General of Observatories :—

The total rainfall in January was in defect by 0.09" in Chota Nagpur and 0.19" in Bihar. The eastward passage of the disturbance caused fairly widespread rains in east central India on the 29th and rainfall extended into Chota Nagpur on the 29th and 30th and into Bihar on the last day of the month. The maximum temperature was below normal in Chota Nagpur and above in Bihar. The minimum temperature was below normal in the province while humidity was in defect throughout the province.

The total rainfall in February was in defect by 0.48" in Chota Nagpur and 0.50" in Bihar. The weather was cloudy during the month in almost all the parts of the province. Both the maximum and minimum temperatures were below normal in Chota Nagpur and above in Bihar and the humidity continued to be in defect.

The total rainfall in March was in defect by 0.40 " in Chota Nagpur and 0.27" in Bihar. Thunderstorms occurred intermittently during the month in the east United Provinces. Both the maximum and minimum temperatures were above normal in the province and the humidity continued to be in defect.

The total rainfall in April was in defect by 0.64" in Chota Nagpur and 0.39" in Bihar. Air was drier than usual in Chota Nagpur and Bihar. Skies were less clouded than usual in Bihar. The maximum temperature was below normal in Chota Nagpur and above in Bihar. The minimum temperature was below normal in the province and the humidity continued to be in defect.

The total rainfall in May was in excess by 2.12" in Chota Nagpur and 0.26" in Bihar. Thunderstorms, sometimes attended with hail occurred intermittently during the first three weeks of the month in Chota Nagpur and Bihar. The total rainfall of the month was in large excess in Chota Nagpur and in slight to moderate excess in Bihar. Cloud amount was in excess in the province. The maximum temperature was below normal in the province. The minimum temperature was below normal in Chota Nagpur and above in Bihar. The humidity was in excess in Chota Nagpur and above normal in Bihar.

The total rainfall in June was in excess by 3.36" in Chota Nagpur and in defect by 1.25" in Bihar. Skies were more clouded than usual throughout the province. Both the maximum and minimum temperatures were below normal. Of the day to day march of temperatures may be mentioned the marked lowering, due to rain-cooling, of temperatures, particularly the maximum in Chota Nagpur between the 12th and 14th. Humidity was in excess in Chota Nagpur and normal in Bihar.



The total rainfall in July was in moderate excess by 4.87" in Bihar and in slightly above normal by 1.22" in Chota Nagpur. A depression formed at the head of the Bay of Bengal early in the month and had passed inland across the Orissa coast by the 3rd morning. It became unimportant over Chota Nagpur three days later. A depression which formed off the Orissa-Ganjam coast on the 20th, crossed the Orissa coast near Puri three days later and, travelling across Orissa and the east Central Provinces, filled up over Bihar on the 26th. Floods were reported from North Bihar. Both the maximum and minimum temperatures were below normal and the humidity was above normal in the province.

The total rainfall in August was in defect by 0.88" in Chota Nagpur and 1.05" in Bihar. The maximum temperature was in defect in Chota Nagpur and above normal in Bihar. The minimum temperature was normal in Chota Nagpur and above normal in Bihar while the humidity was normal in Chota Nagpur and in defect in Bihar.

The total rainfall in September was in large excess by 7.77" in Bihar and in moderate excess by 3.14" in Chota Nagpur. The spell of strong monsoon in north-east India during the second week of the month caused widespread and locally heavy rain in Chota Nagpur and Bihar between the 10th and 12th, attended with severe floods in the rivers of Bihar causing widespread damage and distress. The towns of Gaya and Chapra were partly submerged and Patna was cut off from the rest of the country. Railway lines and roads in Bihar and Chota Nagpur were breached leading to serious dislocation of traffic. Both the maximum and minimum temperatures were in defect while the humidity was above the normal.

The total rainfall in October was in large excess by 2.77" in Chota Nagpur and in moderate excess by 1.19" in Bihar. Rainfall was exceptionally heavy on the 4th and intensive damage was reported to have occurred over a wide area in the province. Railway services as well as telegraphic and telephonic communications in Chota Nagpur and Bihar were seriously dislocated. Maximum temperature was in defect. The minimum temperature was in defect in Chota Nagpur and above normal in Bihar. The humidity was above normal in Chota Nagpur and in defect in Bihar.

The total rainfall in November was in slight excess by 0.06" in Chota Nagpur and in defect by 0.25" in Bihar. Skies were clouded than usual throughout the province. The maximum temperature was in defect in Chota Nagpur and above normal in Bihar. The minimum temperature was above normal in the province. The humidity was above normal in Chota Nagpur and in defect in Bihar.

The total rainfall in December was in large excess by 0.31" in Chota Nagpur and 0.28" in Bihar. Associated with the eastward passage of the disturbance, thunderstorm and rain was fairly widespread in Bihar and Chota Nagpur on the 19th and 20th. Scattered showers occurred intermittently during the month in Chota Nagpur. Both the maximum and minimum temperatures were above normal in the province. The humidity was above normal in Chota Nagpur and in defect in Bihar.

The total rainfall in the province during the year under report was 61.49", that is above normal by 10.81". These figures include the figures of Orissa from January to April 1936.

The total rainfall during the year in Bihar and Chota Nagpur was 60.44" and 62.21" respectively as against 43.98" and 49.77" respectively in the previous year.

2. *Price of common grain.*—The average price of common rice during the year varied from 9 seers in the district of Purnea to 17 seers 4 chittaks in Santal Parganas. But in the majority of the districts it remained over 12 seers as in the previous year.



The following statement shows the average monthly price of common rice at the headquarters of the districts of the whole province for the year 1936.

*Statement showing the monthly average price of common rice (cheapest) at the headquarters markets of the districts of the province of Bihar for the year 1936.*

Districts.	Janu- ary.	Febru- ary.	March.	April.	May.	June.	July.	August.	Sep- tember.	Octo- ber.	Novem- ber.	Decem- ber.
	Sr. ch.	Sr. ch.	Sr. ch.	Sr. ch.	Sr. ch.	Sr. ch.	Sr. ch.	Sr. ch.	Sr. ch.	Sr. ch.	Sr. ch.	Sr. ch.
Patna ..	11 0	11 0	10 12	10 8	10 8	11 0	11 0	11 0	11 0	11 2	11 0	11 14
Gaya ..	11 4	11 0	11 4	11 8	11 0	11 0	11 4	11 0	11 0	11 0	11 0	13 8
Shahabad ..	13 8	14 0	13 4	12 8	11 0	11 0	12 0	11 6	11 8	12 0	11 12	11 12
Saran ..	12 8	12 0	12 0	11 4	11 0	11 4	11 8	11 0	10 4	11 0	11 0	12 0
Champanan ..	12 0	11 0	11 0	10 0	10 8	10 0	10 0	10 0	10 8	11 8	12 4	13 4
Muzaffarpur ..	10 8	10 8	10 8	10 8	10 0	10 0	10 8	10 0	10 0	10 0	10 0	10 0
Darbhanga ..	10 14	11 0	10 8	10 4	9 4	9 12	10 8	10 0	10 0	10 0	10 0	10 8
Monghyr ..	10 8	10 6	10 8	10 8	10 6	10 0	10 0	10 0	10 0	10 2	10 0	10 4
Bhagalpur ..	11 12	11 12	11 4	11 4	11 6½	12 0	10 10	11 4	11 14	11 4	11 14	13 5
Purnea ..	12 0	12 0	12 0	12 0	12 0	12 0	11 8	10 0	9 8	9 0	9 8	10 4
Santal Parganas ..	12 6	12 4	12 0	12 0	11 4	11 12	11 8	12 0	12 8	13 0	17 4	16 8
Hazaribagh ..	12 0	12 0	11 14	11 10	10 12	11 0	11 10	11 8	13 0	13 0	15 0	15 8
Ranchi ..	13 8	13 0	12 0	11 12	11 8	11 8	11 12	12 4	12 0	12 0	15 12	16 0
Palamau ..	12 0	12 0	12 0	12 0	11 8	11 12	11 12	11 0	12 8	12 0	12 0	13 8
Manbhum ..	12 0	12 0	12 0	11 12	11 0	10 12	11 8	11 0	12 8	12 0	15 0	16 8
Singhbhum ..	12 0	12 0	12 0	11 4	11 14	11 8	11 4	11 4	13 0	14 8	15 8	16 0

The average price of common rice during 1933 and 1934 varied from 10 seers 2 chattacks to 27 seers 13 chattacks and 10 seers to 24 seers 10½ chattacks to the rupee respectively. The average price of common rice during the five years 1928—1932 ranged from 4 seers 3 chattacks to 23 seers 10 chattacks as compared with 4 seers to 19 seers 11 chattacks to the rupee in the previous quinquennium. It will therefore appear that the price of common rice steadily went down till 1934, when it showed a slight increase during 1935 and 1936.

## CHAPTER II.

### VITAL STATISTICS.

1. The population of the province at the census taken in February 1931 was 32,371,434. This figure has been used as usual to calculate the ratios in the report.

The mid-year population as ascertained by the natural increase method, i.e. by addition of excess of births over deaths from the 1st of July 1935 to 30th June 1936 was 34,293,254 as against 33,904,649 of the previous year. This figure cannot be regarded as quite accurate on account of errors due to emigration and immigration and due to faulty recording of births and deaths. Every year a large number of labourers emigrate from this province to Bengal and Assam but the figures of emigration and immigration are not available.

2 The estimated population for the year under review was 34,039,314 as against 33,705,738 of the previous year. This figure has been calculated on the assumption that the population has increased by arithmetical

progression. The following two statements record the estimated population in various age groups and also the ratios of births and deaths from the chief diseases calculated on the estimated population of 1936.

#### STATEMENT A.

*Population according to age group of the province of Bihar.*

1	2		3		4		5		6	
	Under 1 year.		One and under 5 years.		5 and under 10 years.		10 and under 15 years.		15 and under 20 years.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Census, 1921 ..	428,171	430,762	1,242,286	1,359,885	2,379,710	2,288,361	1,839,157	1,512,999	1,218,397	1,124,128
Census, 1931 ..	389,476	396,266	1,996,260	2,110,112	2,330,522	2,129,096	2,005,728	1,767,032	1,322,530	1,361,558
Decennial increase or decrease.	—38,695	—34,496	+753,974	+750,227	—49,185	—159,265	+166,571	+254,033	+1,041,133	+237,430
Annual increase or decrease, 1936 ..	—19,345	—17,250	+376,985	+375,115	—24,595	—79,630	+83,285	+127,015	+52,065	+118,715

1	7		8		9		10		11	
	20 and under 30 years.		30 and under 40 years.		40 and under 50 years.		50 and under 60 years.		60 years and upwards.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Census, 1921 ..	2,238,042	2,509,809	2,119,934	2,208,112	1,473,372	1,458,625	818,288	851,054	655,716	876,508
Census, 1931 ..	2,763,352	2,894,276	2,347,958	2,314,501	1,595,753	1,513,295	904,766	913,225	594,542	727,186
Decennial increase or decrease.	+525,310	+384,467	+222,024	+106,389	+122,381	+54,670	+86,478	+62,171	—61,174	—149,322
Annual increase or decrease, 1936 ..	+262,655	+192,235	+111,013	+53,195	+61,190	+27,335	+43,240	+31,085	—30,585	—74,660

#### STATEMENT B.

*Ratios of births and deaths from chief diseases calculated on the estimated population of 1936.*

	Male.	Female.	Total.
Births	17.3	16.3	33.6
Total deaths	21.6	19.6	20.6
Cholera	0.2	0.2	0.2
Small-pox	0.7	0.6	0.7
Plague	0.03	0.04	0.04
Fevers	16.8	15.4	16.1
Dysentery and Diarrhoea	0.1	0.08	0.09
Respiratory diseases	0.1	0.08	0.09

3. *Births.*—The total number of births in this province during 1936 was 1,144,008 (587,616 males and 556,392 females) as compared with 1,108,571



in 1935. This means an increase of 35,437 births or 1.1 per thousand population during the year over those recorded in the preceding year. The provincial birth-rate for the year 1936 was 35.3 as compared with 34.6 in 1935. The average birth rate for the last 10 years was 33.6.

The statement below gives figures regarding birth rates in other provinces of India.

<i>Province.</i>					<i>Birth rate per mille of popula- tion, 1936.</i>
Bihar	...	...	...	...	35.34
Orissa	...	...	...	...	36.63
Bengal	...	...	...	...	33.53
United Provinces	...	...	...	...	38.99
Central Provinces	...	...	...	...	42.50
Punjab	...	...	...	...	46.85
Bombay	...	...	...	...	41.40
Madras	...	...	...	...	37.76
Burma	...	...	...	...	34.27
Assam	...	...	...	...	30.24
North-West Frontier Province	...	...	...	...	32.64
Sind	...	...	...	...	20.52

4. *Birth Registration.*—The highest birth-rate 45.8 was recorded in the Gaya district and lowest birth rate 23.6 in the district of Singhbhum. The municipalities of Tikari, Revelganj and Lalganj registered the highest birth rates, namely 42.3, 41.3 and 40.0 respectively whilst the municipalities of Jamshedpur, Deoghar and Sahebganj registered the lowest rates, viz., 3.5, 7.1 and 7.6 respectively.

The rural and urban areas of the province recorded 1,113,921 and 29,813 births, the mean birth rates for these areas being 35.9 and 22.5 per mille population respectively.

The majority of the districts and the towns recorded birth rates near the mean figures and the average rate is not affected to any appreciable extent because exception of both high and low rates are few and variations occur amongst comparatively small population.

5. *Deaths.*—The total number of deaths in the province during the year under review was 701,814 (369,974 males and 331,840 females) as compared to 786,710 in the previous year. Out of these, the rural areas recorded 683,439 deaths and the urban areas 18,375. The total deaths show a decrease of 84,897 deaths or 2.6 per mille of population over those recorded in the preceding year. The provincial death rate for 1936 was 21.7 as compared with 24.3 in 1935. The average death rate for the last ten years was 23.3. The statement below shows comparative rates in other provinces :—

<i>Province.</i>					<i>Death rate per mille of popula- tion, 1936.</i>
Bihar	...	...	...	...	21.68
Orissa	...	...	...	...	27.84
Bengal	...	...	...	...	24.50
United Provinces	...	...	...	...	22.61



<i>Province.</i>					<i>Death rate per mille of popula- tion, 1936.</i>
Central Provinces	...	...	...	...	34.89
Punjab	...	...	...	...	23.97
Bombay	...	...	...	...	27.75
Madras	...	...	...	...	23.30
Burma	...	...	...	...	21.84
Assam	...	...	...	...	19.63
North-West Frontier Province	...	...	...	...	17.92
Sind	...	...	...	...	12.49

6. *Death Registration.*—The highest death rates were recorded in the districts of Palamau, Purnea and Bhagalpur as 26.0, 25.1 and 24.3 respectively, whilst the lowest were recorded in Manbhum and Santal Parganas districts as 18.0 and 18.2 respectively. Amongst the towns in the province the highest death rates were recorded in Gaya (32.4), Hajipur (21.5), Chapra (21.3) and lowest in Katihar (2.6), Dumka (3.3) and Dumraon (3.5).

The average death rate of the rural areas was 22.0 and of the urban areas 13.7. Thus the rural death rate was higher than that of the urban area by 8.3.

The rate of increase in the population, i.e., the excess of birth rate over the death rate in the province was 13.6 as compared with 9.9 in the previous year.

7. *Mortality according to age, class and sex.*—The mortality rate based on the census figures of 1931 was 191.2 for male infants and 152.6 for female infants under one year of age per mille population as compared with the corresponding figures of 181.7 and 147.6 in the previous year. But when calculated from the actual births recorded in 1936 the mortality for infants under one year was found to be 126.7 for males and 108.7 for females per mille with the total infant mortality rate of 118.0 per mille as against the corresponding total of 116.6 in 1935. With the termination of the first year of life the rate fell to 37.7 for males and 33.0 for females as compared with the corresponding fall to 45.5 for males and 40.0 for females in the previous year. As usual the total mortality amongst males was higher than that amongst females in the ratio of 111 to 100.

There was, as usual, considerable differences in the death rates amongst the different communities. The death rate was highest amongst Hindus (22.1) and lowest amongst Buddhists (3.8). The Muhammadan death rate was 20.0, the Christian death rate was 13.3, and that of other classes 20.8.

8. *Verification of the registration of vital occurrences.*—Registration of vital occurrences is compulsory in all the municipalities of the Province. The accuracy of 21,141 vital occurrences was investigated and verified by the health officers and by the officers of the Vaccination Department. One hundred and sixty-one omissions were detected, 115 prosecutions were instituted and 93 convictions were obtained. The registration of vital occurrences is not compulsory in rural areas. The reporting agency in the rural areas as also in most municipalities is the police. The village chaukidars attend their respective thanas on parade day, perhaps more frequently when there is an epidemic to report the vital occurrences of their respective villages. This system although it prevails in every part of India remains defective, specially with regard to the correct classification of the causes of deaths. The diagnosis of the disease lies with the village chaukidars who are mostly illiterate and as they have to depend entirely on what they are told by the members of the family, it is obvious that a classification based on such diagnosis cannot be accurate.

An attempt has been made during recent years to transfer the responsibility of collection, tabulation and verification of the vital occurrences to

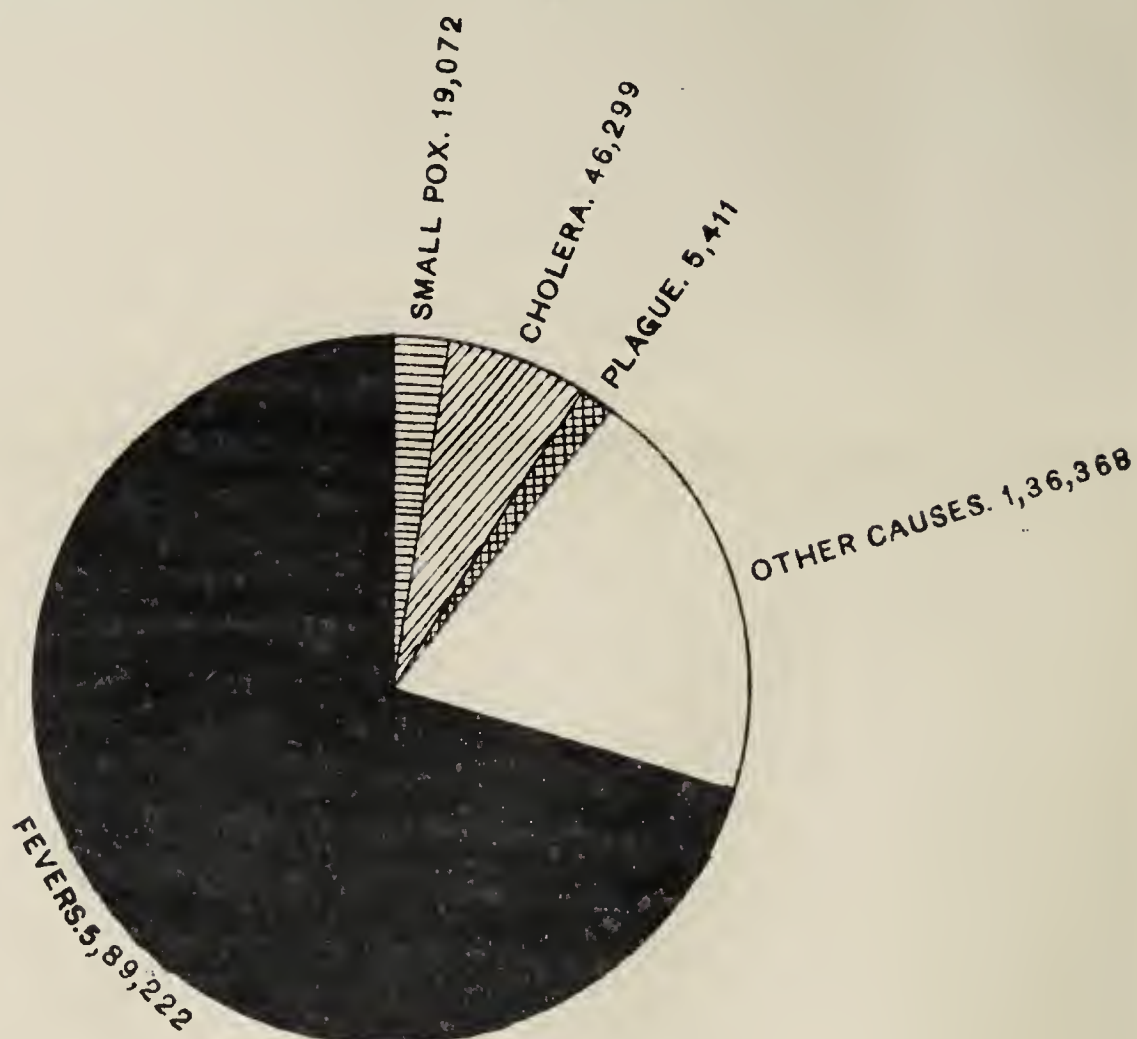




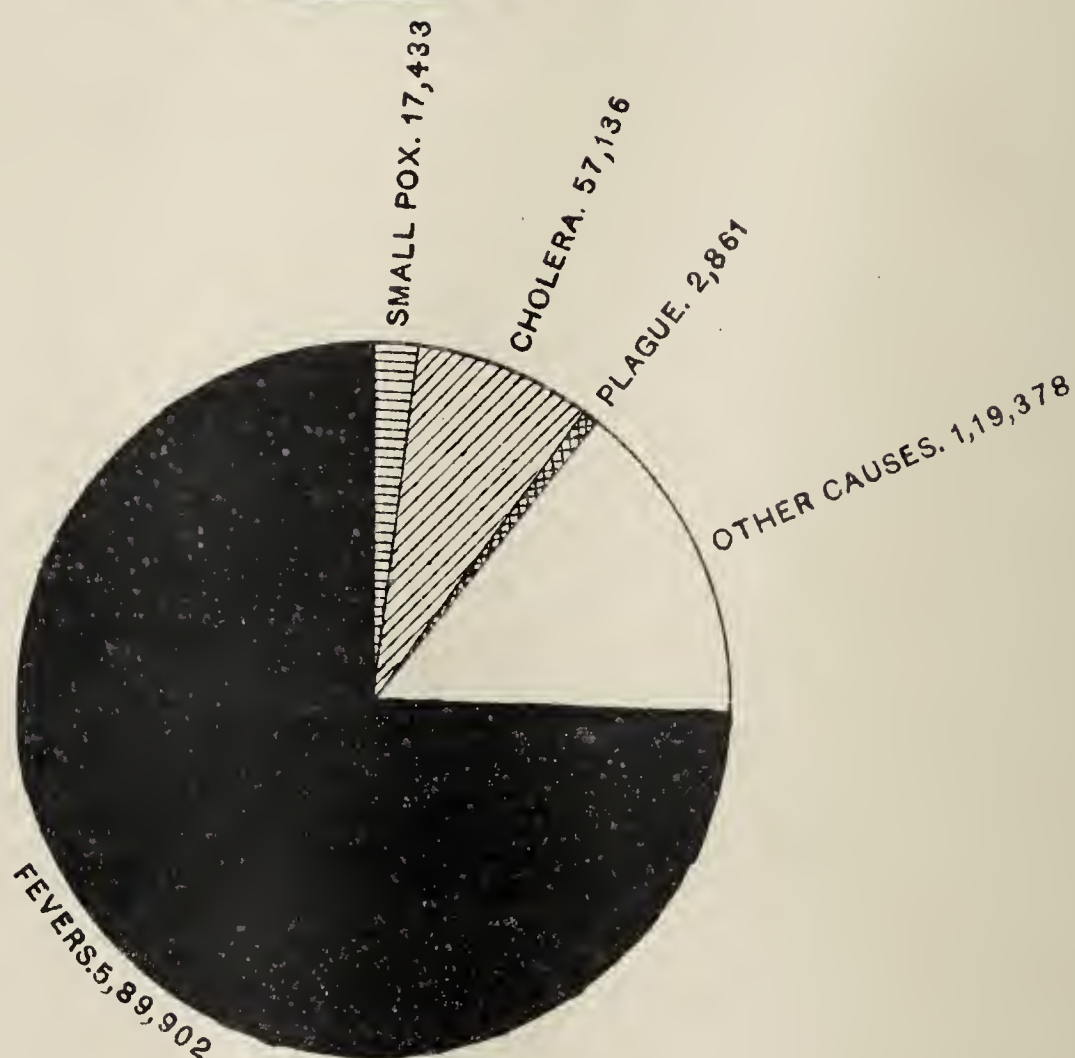
# BIHAR

## COMPARATIVE DIAGRAMS OF DEATHS BY CAUSES

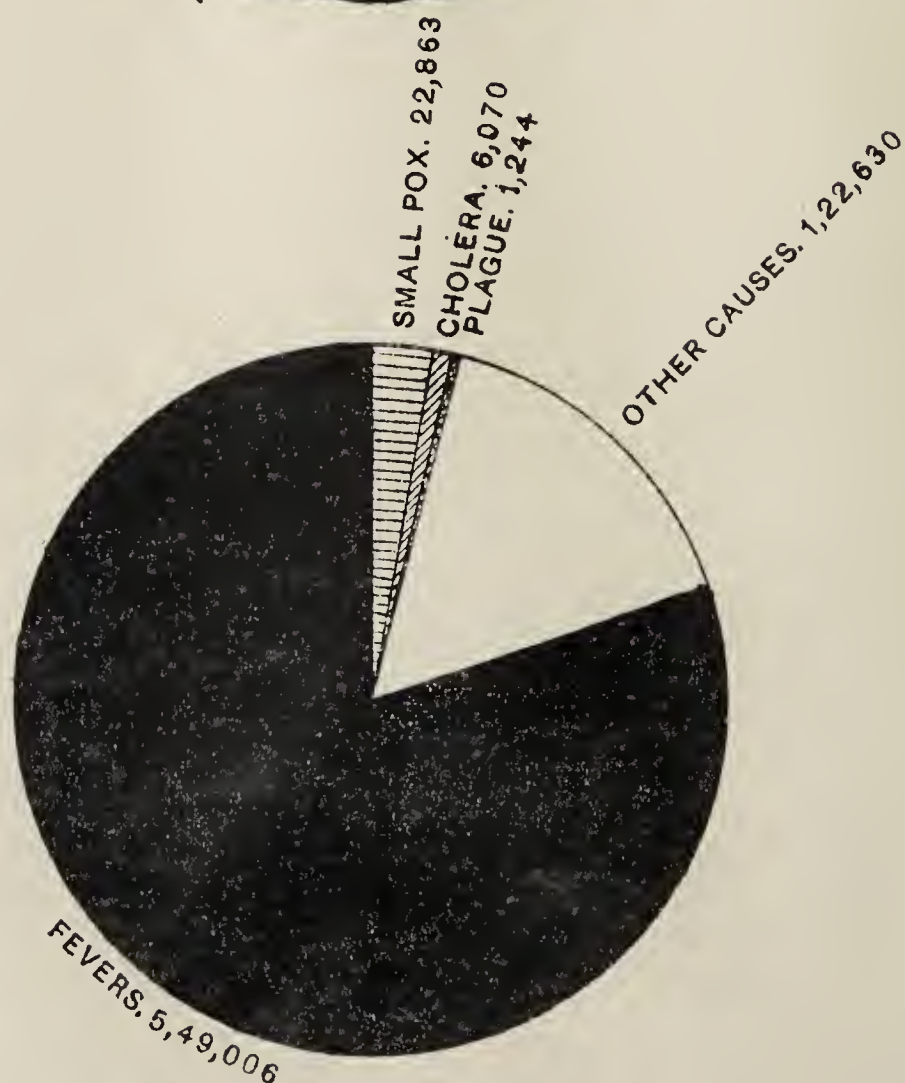
Year 1934  
Total deaths. 7,96,372



Year 1935  
Total deaths. 7,86,710



Year 1936  
Total deaths. 7,01,813





the staff of the bigger municipalities, namely Patna City and Ranchi. A partial transfer has also been affected in Gaya, Chapra and Muzaffarpur municipalities, where both the municipality and police report these statistics separately. The figures thus supplied by the police and those by the municipal health staff are compared and cases of under and over reporting are verified. The results show that the figures collected by the staff of the municipalities are more accurate and it is expected that as more and more municipalities appoint their health officers they will be in a position to assume the responsibility of collecting and registering accurate vital statistics.

*Verification of vital statistics in rural areas.*—In rural areas 161,087 vital occurrences were verified by the vaccination staff as against 155,911 in 1935. Verification of vital statistics in rural areas is very difficult specially in the districts which do not maintain complete health organisations under district health officers. The district health officers, where such officers exist, check the figures supplied by the vaccinators and the Civil Surgeons compare the figures supplied by the police with those furnished by the health officers.

9. *Publication of vital statistics.*—The weekly publication of vital occurrences for all the municipal towns in the Province with a population of over 20 thousand continued, as usual, throughout the year.

Weekly epidemic reports from all the districts, showing attacks and deaths from cholera, small-pox, plague and influenza, were published regularly in the *Bihar Gazette* and also in some of the important newspapers.

By the publication of these statistics the general public is kept informed of the actual state of health of the larger towns and of the prevalence of epidemic diseases in the districts. Publicity of this kind also demonstrates the utility of vital statistics and helps to create an interest in the mind of the people for general public health.

## CHAPTERS III AND IV.

### STATE OF PUBLIC HEALTH IN THE PROVINCE AND HISTORY OF THE CHIEF DISEASES—EPIDEMIOLOGY.

1. *Comparative incidence of the chief diseases.*—The undermentioned statement compares the ratios under the chief heads of mortality in 1936 with the average ratio of the previous ten years:—

			Urban.		Rural.		Combined.	
			Ten years' average.	1936.	Ten years' average.	1936.	Ten years' average.	1936.
Cholera	...	...	0.9	0.1	1.6	0.2	1.6	0.2
Small-pox	...	...	0.6	0.7	0.5	0.7	0.5	0.7
Plague	...	...	0.08	0.1	0.2	0.03	0.2	0.04
Fevers	...	...	7.1	5.5	17.2	17.4	16.8	16.9
Dysentery and Diarrhoea	...	...	0.6	0.5	0.1	0.08	0.1	0.1
Respiratory diseases	...	...	0.5	0.6	0.07	0.07	0.09	0.1
Injuries	...	...	0.5	0.5	0.3	0.3	0.3	0.3
All other causes	...	...	4.4	4.7	3.4	3.2	3.5	3.3
Total	...	...	14.7	13.7	23.4	22.0	23.0	21.7



The death rate has decreased from 24.3 in 1935 to 21.7 per mille population in 1936. The decrease in the number of deaths was due chiefly to comparatively less number of deaths from cholera and fevers, the death rates being 0.2 and 16.9 as against 1.8 and 18.2 of the previous year.

The highest death rate 16.9 was recorded from fevers but in the absence of any arrangement to report correct diagnosis it is not possible to say what percentage of deaths under fevers is definitely due to malaria.

The urban death rates for cholera and fevers were lower than those of the rural areas. This is ascribed to better standard of sanitation in the municipal towns, but the mortality rate from the respiratory disease still remains higher in the urban areas. The incidence of pulmonary tuberculosis is reported to be increasing in many of the bigger towns. This disease together with influenza and pneumonia appears to be mainly responsible for the increased mortality rate from respiratory diseases. Control of tuberculosis particularly in towns is necessary.

2. *Cholera statistics*.—The death rate from cholera decreased from 1.8 per mille in 1935 to 0.2 per mille in 1936. The districts of Manbhum, Santal Parganas and Hazaribagh recorded the highest death rate, viz. 0.9, 0.4 and 0.4, respectively. Amongst the towns Deoghar (1.4), Purulia (0.4) and Jhalda (0.4) reported highest death rates.

3. *Cholera in the Province*.—The year 1936 proved a favourable year for cholera. The total number of deaths from this disease in 1936 was 6,070 as compared with 57,136 in 1935.

A comparative study of mortality figures from cholera, district by district, from 1929 to 1936 further shows that cholera generally begins late in the summer in the districts of South Bihar and remains present till the advent of the winter months, but the disease begins early in the summer months in the districts of North Bihar and dies out by the end of the monsoon period. The bad year of cholera generally recurs after every five or six years and the highest intensity of the epidemics in the districts of South Bihar and in those of North Bihar occurs in two different but consecutive years. Cholera was widely prevalent in certain districts of South Bihar and Chota Nagpur, viz., Patna, Gaya, Shahabad and Palamau in 1930. The year 1934 proved again a bad cholera year for the abovementioned districts in South Bihar and Chota Nagpur while the districts of North Bihar were comparatively worse affected in 1935.

4. *Cholera preventive measures*.—With the growth of public health organisations in districts there is rapidly being created in those districts which employ health officers, an efficient and well trained staff to deal with the outbreak of cholera as soon as they occur. Ten district boards continued to maintain health officers with a suitable subordinate health staff. There were, as usual, fewer demands for epidemic doctors to combat cholera from these districts. But when the outbreak became widespread and the district staff were unable to cope with the situation, temporary epidemic doctors had to be detailed from this department. Twenty-eight Government epidemic doctors were detailed on epidemic duty during the year in the cholera and malaria affected areas of the districts.

Stock of disinfectants such as bleaching power, permanganate of potash and also cholera bacteriophage are kept in reserve by the district boards. If required, the Civil Surgeons also requisition for these disinfectants and drugs from the Director of Public Health, who also supplies these disinfectants to the local bodies in cases of emergency. Anti-cholera inoculation has now become a popular preventive measure and Government maintain a large stock of cholera vaccine at the Vaccine Depot, Namkum. The Superintendent, Vaccine Depot, is generally asked by telegram to despatch the vaccine immediately when it is required in the Province. The number of doses of cholera vaccine issued during the year was 288,930 against 945,665 doses issued last year. The use of choleraphage for the prevention and treatment of cholera is dealt with in Chapter XIV.



5. *Small-pox*.—The total number of deaths from small-pox during 1936 was 22,863 as compared with 17,433 in 1935. The mortality rate for the year 1936 was 0.7 as against 0.5 in the previous year. From 1925 to 1936, the mortality rate from small-pox rose high during 1927 and 1933. The lower death rate from small-pox in 1935 is attributed to the immunity conferred by the extensive vaccinations and re-vaccinations carried out during the year 1933 when a small-pox epidemic prevailed in the province and the death rate rose to 1.1.

As usual the rural areas suffered more than the urban areas and the highest death rate was registered in the districts of Purnea (2.0) and Shahabad (1.6) while the districts of Ranchi, Champaran and Muzaffarpur returned the lowest death rates, namely 0.05, 0.1 and 0.1. Amongst the towns Roserah, Chaibassa and Jamalpur reported highest death rates, viz., 5.6, 2.6 and 2.4 respectively.

Primary vaccination is compulsory under the Bengal Vaccination Act in all the municipal towns of the province and the rural areas of the districts of Patna, Gaya, Muzaffarpur, Saran, Champaran, Darbhanga, Purnea, Bhagalpur and Hazaribagh. All these districts except Hazaribagh have health organisations under district health officers. With the extension of section 92 to 96 of the Local Self-Government Act, the control of vaccination has been handed over to the local bodies who have taken up health organisation schemes and the health officers of the district boards of Gaya, Shahabad, Saran, Muzaffarpur, Purnea, Darbhanga, Patna, Champaran and Bhagalpur have been appointed Superintendents of Vaccination. The inspection of vaccination is now done by the district health staff in these districts and Government vaccination inspecting staff have been withdrawn. The Civil Surgeons still exercise the powers of the Superintendents of Vaccination in places where the local bodies have no health officers. Government exercise control over the administration of vaccination in the province through the Assistant Directors of Public Health who make annual vaccination inspection tours and submit special reports on this work. To make supervision of vaccination still more effective, Government have appointed three Special Vaccination Inspectors to work under each of the three Assistant Directors of Public Health. In addition to the inspection work, the Special Inspectors of Vaccination assist in organising the vaccination work in the districts where the Compulsory Vaccination Act has been introduced and also push on vaccination at places where small-pox breaks out in an epidemic form. It is expected that in the near future all the districts of the province will take over direct control of this important public health measure.

The vaccine lymph manufactured at the Vaccine Depot, Namkum, is supplied throughout the province free of cost. 1,586,143 vaccination operations were performed in the province during the year under report. Out of these 983,735 were cases of primary vaccination and 602,408 were those of re-vaccination. Although it is a known fact that vaccination definitely checks the incidence of small-pox, the rate of mortality from the disease tends to show sharp rises at times. This is due to the fact that a large number of children escape even primary vaccination and thus remain unprotected. Besides, the immunity conferred by primary vaccination passes off within six to seven years. It is, therefore, quite clear that so long as vaccination and also re-vaccination are not made compulsory throughout the province, the incidence of small-pox will continue.

6. *Plague Statistics*.—There were 1,245 deaths from plague in the province during the year under report as compared with 2,861 in the previous year, and the death rate was 0.04 as compared with 0.09 in the previous year. There are certain isolated tracts in the districts of Champaran, Saran, Muzaffarpur, Darbhanga and North Monghyr where plague starts almost every year with the approach of the winter season, reaches its maximum intensity during February and March and declines with the advent of the summer months. The district of Saran with 884 deaths recorded the highest death rate (0.3) followed by Muzaffarpur (0.07) and Champaran (0.07).



In the district of Champaran, plague was responsible for 146 deaths in 9 villages during this year. The town of Bettiah also remained infected with plague almost throughout the year with the exception of a short period during the months of August and October and reported 119 deaths as against 115 deaths in the preceding year.

A Government epidemic doctor was detailed on plague duty in Bettiah town and the district board health staff did plague duty in Bettiah and Bagha thanas.

In the district of Saran, the epidemic of plague in January 1936 was practically in continuation of the epidemic of 1935. The three Assistant Health Officers carried out anti-plague inoculations. As the epidemic increased an extra staff of two doctors, five Health Inspectors, and 22 sanitary jamadars were appointed by the district board. There were 884 deaths during the year as against 1,470 in the previous year. 20,472 anti-plague inoculations were performed and the usual measures of disinfection with Kerosine oil were carried out.

In Muzaffarpur, the disease was confined, as usual, to parts of Hajipur and Sadr subdivisions. The epidemic was milder than that of the previous year. 209 deaths were recorded this year as against 519 of the previous year. Anti-plague inoculations 3,780 in number were carried out by the medical officers of the dispensaries and the public health doctors of the district board.

In Darbhanga, only 5 deaths from plague were recorded during the year under report as against 446 of the previous year. The disease remained confined to the Samastipur subdivision.

No case of plague was reported from Monghyr district during the year although Beguserai subdivision had been recording this disease every year.

7. *Dysentery and Diarrhoea*.—There were 3,118 deaths from this group of disease as against 4,044 deaths in the preceding year and the mortality rate was 0.1 as against 0.1 in the previous year. The towns which recorded highest death rates were Lalganj (1.6), Jamalpur (1.5) and Barh (1.3).

## CHAPTER V.

### FAIRS AND FESTIVALS.

1. A large number of *melas* are held every year in different parts of the province. Many of these *melas* are purely of local interest and are attended by the people of the district in which they are held and of the adjoining districts. Many of these are cattle fairs which are held during the religious festivals. The two sacred towns, Gaya and Deoghar attract pilgrims throughout the year. The Pitripaksha *mela* usually held at Gaya in the month of September, is visited by the largest number of pilgrims in South Bihar. The Sonapur fair also known as Harihar Chatra is annually held in the month of November in the district of Saran and lasts for a fortnight. This *mela* is considered as one of the largest cattle fairs of the world and is usually attended by about two lakhs of visitors.

2. The Sonapur fair, the biggest fair in India, started on the 24th November 1936 and lasted for a fortnight. The fair is famous for cattle, horses and elephants. The number of people visiting the fair has been gradually decreasing. About one lakh pilgrims came to Sonapur on the bathing day, which fell on the 28th November and about one and a half lakhs of people visited the place during the *mela* period. Besides 560 elephants, 2,060 horses and 34,006 cattle were brought for sale in the *mela* area. Special sanitary arrangements as in the previous years were made by the Public Health Department in conjunction with the district board health staff. The whole *mela* area was, as usual, divided into three health circles and each circle was placed in charge of a medical officer deputed by the district board. Each one of these officers was assisted by subordinate staff deputed by the district board. All the 65 wells in the *mela* area were dewatered and disinfected twice before the commencement of the fair and they were regularly chlorinated during the



*mela* period. The drinking water-supply was mainly from the Government Waterworks by means of pipes and standposts throughout the *mela* area. No scarcity of drinking water was reported this year. Arrangement was also made to render the water of Mahura and Mahi rivers unfit for drinking by constant chlorination of the former and by oiling the latter during the *mela* period. No case of cholera was reported from the *mela* area this year.

The health staff delivered 12 lectures, illustrated with magic lantern slides on public health subjects. Printed leaflets on public health subjects in different vernaculars were widely distributed among the visitors and illustrated posters were also pasted at prominent places. 302 prostitutes camped in the *mela* area this year against 243 in the previous year. A constant watch was kept by the health staff over the prepared articles of food sold in the *mela* area. To keep down the dust nuisance, two motor lorries and six watering carts were regularly used.

3. The Pitripaksha *mela* at Gaya commenced on the 30th September and ended on the 15th October 1936. 56,992 pilgrims visited Gaya during the period as compared with 67,442 in the last year. The pilgrims, as usual, were chiefly accommodated in the lodging houses and Dharamshalas. The sanitary arrangements were made on the lines as in the previous year. The whole of the *mela* area received pipe water-supply every day during the *mela* period. As the tap water-supply was quite sufficient, the wells were hardly used, but as a precautionary measure, all the wells in the lodging houses as well as those on the road sides within the *mela* area were regularly disinfected. During the *mela* period the town remained free from epidemics. 5 cases of cholera occurred amongst the pilgrims of whom 3 died. These cases were promptly removed to the cholera hospital for treatment.

4. Of the other important *melas*, Bhadra Purnima and Shivaratri *melas* at Deoghar and the Singheshwar *mela* at Bhagalpur may be mentioned. About 10,000 pilgrims occupy the lodging houses and camping ground sheds during the *mela* periods in Deoghar. There has been a steady decrease in the number of pilgrims visiting Deoghar during the last four years.

The places of Pilgrimage Act is in force at Deoghar and Jasidih Bazar since 1920 and 78 licenses were issued under the Act for accommodation of 3,103 lodgers. The usual sanitary and water-supply arrangements made for the *mela* were found satisfactory. A special medical officer was, as usual, detailed from the Public Health Department for the *mela* period. A whole time health officer is considered necessary for the Deoghar municipality who can also look after the sanitary arrangement of the *mela* area.

The Singheshwar *mela* attracts about 30,000 people during Shivaratri. A large number of elephants, cattle and horses are brought for sale in the *mela*.

Besides, numerous other fairs are usually held in the province. In the districts where health organisations exist, sanitary arrangements are made on these occasions by the local bodies under the direct supervisions of the District Health Officers. The important *melas* are also attended by the Assistant Directors of Public Health who help the local bodies in organising the sanitary arrangements. Special epidemic doctors are detailed by the Public Health Department where their services are requisitioned.

## CHAPTER VI.

### URBAN SANITATION.

1. 27 out of 53 municipalities in the province were inspected by the Assistant Directors of Public Health during the year under review and reports of these inspections were duly submitted to Government. Most of these municipalities do not employ health officers on grounds of financial stringency and so long as their financial condition remains the same, the prospect of employment of suitably qualified health officers by them appears to be a remote possibility.

The towns of Gaya, Patna, Ranchi, Bhagalpur and Darbhanga continued to employ full time health officers. The health officers of the first



three towns mentioned above belong to the provincial public health cadre and are paid by Government while the latter two receive their pay from the municipal fund.

As the sanitary condition of the town of Monghyr was disorganised after the earthquake, a health officer at first lent by Government but later on as the condition improved the officer was withdrawn and the municipality appointed a health officer of its own. This officer was discharged in 1935 by the municipality owing to financial stringency. It is regretted that the services of a health officer could not be permanently retained by this municipality.

The necessity of appointment of health officers in the larger municipalities such as Chapra, Monghyr, Arrah, Purulia, Hazaribagh, Jamalpur and Bihar has long been felt and had been stressed for number of years in the Public Health Reports. The town of Deoghar being an important pilgrim centre, usually attracts a large number of visitors from all over India. It is important that a Health Officer should be appointed to look after the sanitation of this town. The Assistant Directors of Public Health have also recommended time and again, in their inspection reports the desirability of appointing health officers for these municipalities. Sanitary Inspectors by reason of their limited training are not considered qualified enough to undertake the work of health officers, nor are they capable enough to carry out effective preventive measures during epidemics. It is for this reason that the municipalities which do not employ health officers frequently make requisitions for Government epidemic doctors.

Compulsory primary vaccination under the Bengal Vaccination Act is enforced in all municipal towns of the province and the Civil Surgeons are the Superintendents of Vaccination. But in the municipalities of Patna, Gaya, Ranchi, Bhagalpur and Darbhanga which employ fully qualified health officers the responsibility of control of vaccination has been transferred to the municipal commissioners and the health officers of these municipalities have been appointed as Superintendents of Vaccination under section 268 of the Bihar and Orissa Municipal Act, 1922.

Most of the recommendations made by the Assistant Directors of Public Health in their inspection reports involving small expenditure were carried out by the municipalities themselves, but recommendations with regard to bigger schemes and major public health projects for improved drainage and slum clearance, etc., have to wait till the finances of these bodies improve.

2. *Expenditure on sanitation in municipal towns.*—The statement below shows the receipts and expenditure for sanitary purposes during the year 1935-36 as compared with those of the previous year:—

No. of municipali- ties.	Total receipt including opening balance.		Heads of expenditure.	Percentage of expen- diture to the total receipts.			
	1934-35. Rs.	1935-36. Rs.		1934-35. Rs.	1935-36 Rs.	1934-35	1935-36.
53	72,29,436	66,67,359	Conservancy ...	10,69,059	10,48,308	14.8	15.7
			Drainage ...	3,94,924	3,84,603	5.5	5.8
			Water-supply ...	6,15,424	4,72,235	8.5	7.1
			Vaccination ...	14,061	13,808	0.2	0.2
			Epidemics ...	17,591	17,131	0.2	0.2
			Markets and fairs.	40,797	32,279	0.6	0.5
			Other sanitary charges.	10,636	22,511	0.1	0.3
			Public Health Staff.	70,776	61,861	1.0	0.9
			Total ...	22,33,268	20,52,736	30.9	30.8
			*Contagious diseases hospital	2,83,176	2,42,535		

\*This represents cholera hospitals and leper asylums, etc. An expenditure of Rs. 2,42,535 has been incurred in 1935-36. The expenditure is mainly met from Government grants.

3. *Chief sanitary works in municipal towns.*—The details of expenditure under this head are dealt with in the report of the Superintending Engineer, Public Health Circle.



## CHAPTER VII.

## RURAL SANITATION.

1. The health organisation scheme continued to function in 10 out of 16 districts, namely Patna, Gaya, Shahabad, Muzaffarpur, Saran, Champaran, Darbhanga, Bhagalpur, Purnea and Manbhum. The primary aim of this organisation is to prevent the occurrence of epidemic diseases and diffuse knowledge of elementary hygiene and sanitation among the rural masses. Each of these districts has a qualified health officer with the requisite number of subordinate health staff. Some of these districts have also Assistant Health Officers of L.M.P. qualification who are posted at the subdivisional headquarters. Under this scheme the districts are usually divided into a number of circles consisting of one or two thanas. Each of these circles is put in charge of a trained health inspector. The health officers of the district boards of Gaya, Muzaffarpur, Saran, Bhagalpur, Darbhanga, Champaran and Shahabad belong to the Public Health Cadre of the province and they draw their salaries from the provincial budget while the health officers of the district boards of Patna, Purnea and Manbhum are the servants of the board and draw their pay from the board's funds. Patna and Muzaffarpur district boards receive contribution from Government for their health organisation schemes. Previously the Civil Surgeons were entirely responsible for the control of vaccination as Superintendents of Vaccination and Government inspecting officers (inspectors and sub-inspectors of vaccination) were employed to check the work of the vaccinators. But with the introduction of the health organisation scheme in some of the districts, it has been possible to transfer the responsibility of vaccination to the district boards. The health officers of these districts have been appointed Superintendents of Vaccination and the Government vaccination inspecting staff have been withdrawn from such districts.

The Bengal Vaccination Act has been enforced in the rural areas of the districts of Patna, Gaya, Muzaffarpur, Saran, Champaran, Darbhanga, Bhagalpur, Purnea and Hazaribagh. Vaccination is not compulsory in the remaining districts of the Province.

Introduction of the health organisation scheme with a qualified health officer is considered to be an urgent necessity for every district board. Without a health officer in the district, efficient supervision of the work of the subordinate health staff and effective control of epidemics can hardly be possible. It is regretted that the district boards of Monghyr, Ranchi and Hazaribagh have not yet been able to give effect to the suggestion for the employment of health officers. The district boards which have not adopted the health organisation scheme usually maintain a certain number of health staff which is increased temporarily during the time of epidemics. But as soon as an epidemic becomes serious they generally requisition for Government doctors. This means delay and the districts which have no health officers are naturally handicapped to take immediate steps to combat epidemics, in the proper way.

2. *Expenditure on sanitation by district boards.*—The following statement shows the receipt and expenditure of district boards under the principal headings of sanitation:—

Number of district boards.	Total receipt including opening balance.		Heads of expenditure.	Percentage of expenditure to the local receipts.			
	1934-35.	1935-36.		1934-35.	1935-36.	1934-35.	1935-36.
	Rs.	Rs.		Rs.	Rs.		
16	1,75,84,940	1,86,75,861	Conservancy ...	2,71,750	2,59,747	1.5	1.4
			Drainage ...	4,013	4,189	0.02	0.02
			Water-supply ...	2,19,963	1,39,484	1.2	0.7
			Vaccination ...	18,495	13,263	0.1	0.07
			Epidemics ...	1,03,181	92,618	0.6	0.5
			Markets and fairs ...	20,137	21,553	0.1	0.1
			Total ...	6,37,539	5,30,954	3.6	2.8



Statement of expenditure on sanitation by district boards and *per capita* of population district by district.

District.	Income of financial year.			Expenditure on general sanitation.	Expenditure on drainage and water-supply.	Expenditure <i>per capita</i> including water-supply and drainage.	Expenditure <i>per capita</i> excluding water-supply and drainage.
	Income during 1935-36.	Balance in hand of the preceding year.	Total.				
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Patna .. ..	11,90,921 0 0	..	..	49,810 0 0	16,026 0 0	0 0 8	0 0 6
Gaya .. ..	16,22,262 0 0	2,48,799 0 0	18,71,061 0 0	54,216 0 0	5,755 0 0	0 0 5	0 0 9½
Shahabad ..	7,152 7 0	617 1 5	7,769 8 9	1,089 11 0	2,832 8 3	..	..
Saran .. ..	..	..	..	24,976 1 2	6,948 13 9	0 0 2½	0 0 2
Champan ..	9,19,131 4 0	1,23,336 0 0	10,42,467 0 0	18,203 0 0	12,351 5 1	0 0 2⅔	0 0 1½
Muzaffarpur ..	18,82,487 0 0	1,38,518 0 0	20,21,005 0 0	29,000 0 0	..	0 0 3½	0 0 1
Darbhang ..	15,12,872 0 0	4,25,346 0 0	19,38,218 0 0	31,042 2 10	31,097 14 3	0 0 4	0 0 2
Monghyr ..	11,21,468 0 0	1,00,328 0 0	12,21,796 0 0	12,041 0 0	21,068 0 0	0 0 3	0 0 1
Bhagalpur ..	9,58,331 0 0	2,16,321 0 0	11,74,652 0 0	7,436 0 0	4,715 0 0	0 0 1	0 0 0¾
Purnea .. ..	10,92,286 0 0	4,01,009 0 0	14,93,295 0 0	39,170 0 0	11,364 0 0	0 0 3½	0 0 1
Santal Parganas ..	10,705 0 0	1,500 0 0	12,205 0 0	12,205 0 0	3,723 0 0	0 0 0⅙	0 0 0⅙
Hazaribagh ..	9,54,221 0 0	47,789 0 0	10,02,010 0 0	531 0 0	2,388 0 0	0 0 0½	0 0 0⅙
Ranchi .. ..	3,83,283 0 0	49,479 0 0	4,32,762 0 0	3,053 0 0	4,005 0 0	0 0 1	0 0 0⅙
Palamau .. ..	3,85,052 0 0	79,210 0 0	4,64,262 0 0	4,591 0 0	3,241 0 0	0 0 1¾	0 0 1
Manbhum .. ..	7,11,786 0 0	1,00,832 0 0	8,12,618 0 0	9,645 0 0	4,682 0 0	0 0 1½	0 0 1
Singhbhum ..	2,73,325 0 0	64,522 0 0	3,37,847 0 0	282 0 0	3,835 0 0	0 0 1	0 0 1

It will be seen from the above statement that the expenditure on sanitation by district boards, although some of them are in receipt of Government grants towards the maintenance of a health organisation scheme in their districts, is too little to provide for adequate public health amenities to the people.

## CHAPTER VIII.

### MALARIA.

1. Fever is undoubtedly the principal cause of mortality in the Province. Out of a total number of 701,813 deaths, registered during the year fever alone claimed not less than 549,006 victims or 78.2 per cent of the total mortality. Though it is realised that deaths caused by any malady associated with a rise of temperature is registered under the broad head of 'fever', still the fact remains that malaria is responsible for the bulk of deaths.

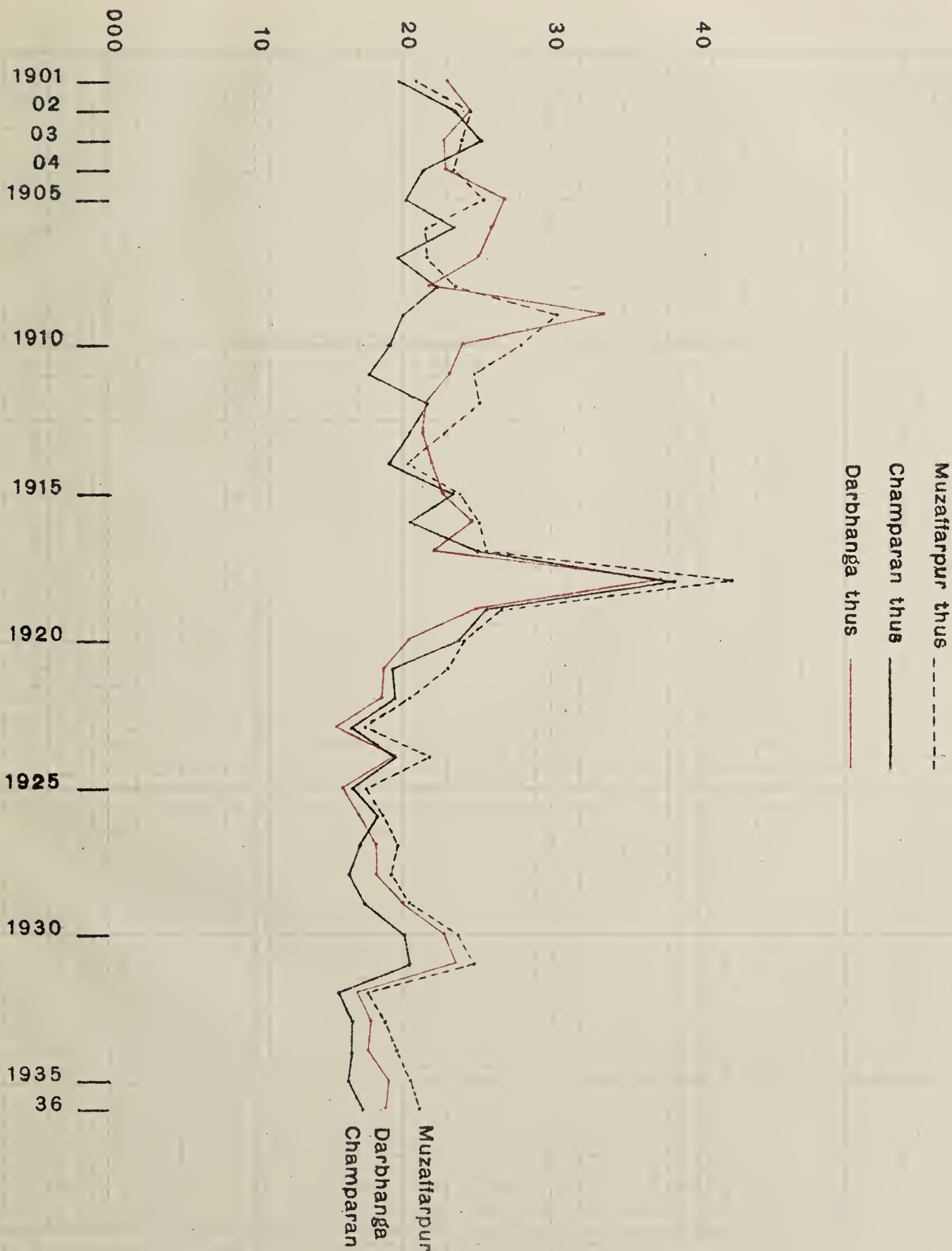
The year 1936 witnessed fulminant epidemics of Paludism in certain portion of North Bihar, particularly in Muzaffarpur, Darbhanga, Bhagalpur and Purnea. The endemic areas of Champaran and Manbhum districts also recorded increased incidence. Minor outbreaks were reported from Monghyr. Epidemic malaria is often associated with enhanced mortality rates, but the incidence being specially discrete and localised the fever death rate for the Province does not show any increase as compared with (18.2 per mille in 1935 and 16.9 per mille in 1936) the previous year, 1935. The highest rates for the year were recorded in the districts of Purnea (21.4), Palamau (21.2), Muzaffarpur (21.0), Bhagalpur (20.6) and Darbhanga (18.3). Towns recording the highest rates being Lohardaga (27.3), Gaya (18.2) and Jhalda (15.7).

The crude death rates from 'fever' since the year 1901 in six of the districts of North Bihar (Tirhut and Bhagalpur divisions) reporting outbreaks of malaria have been graphically represented in the accompanying



# CRUDE FEVER DEATH RATES BY DISTRICTS 1901-36

## FEVER DEATH RATES PER MILLE OF POPULATION

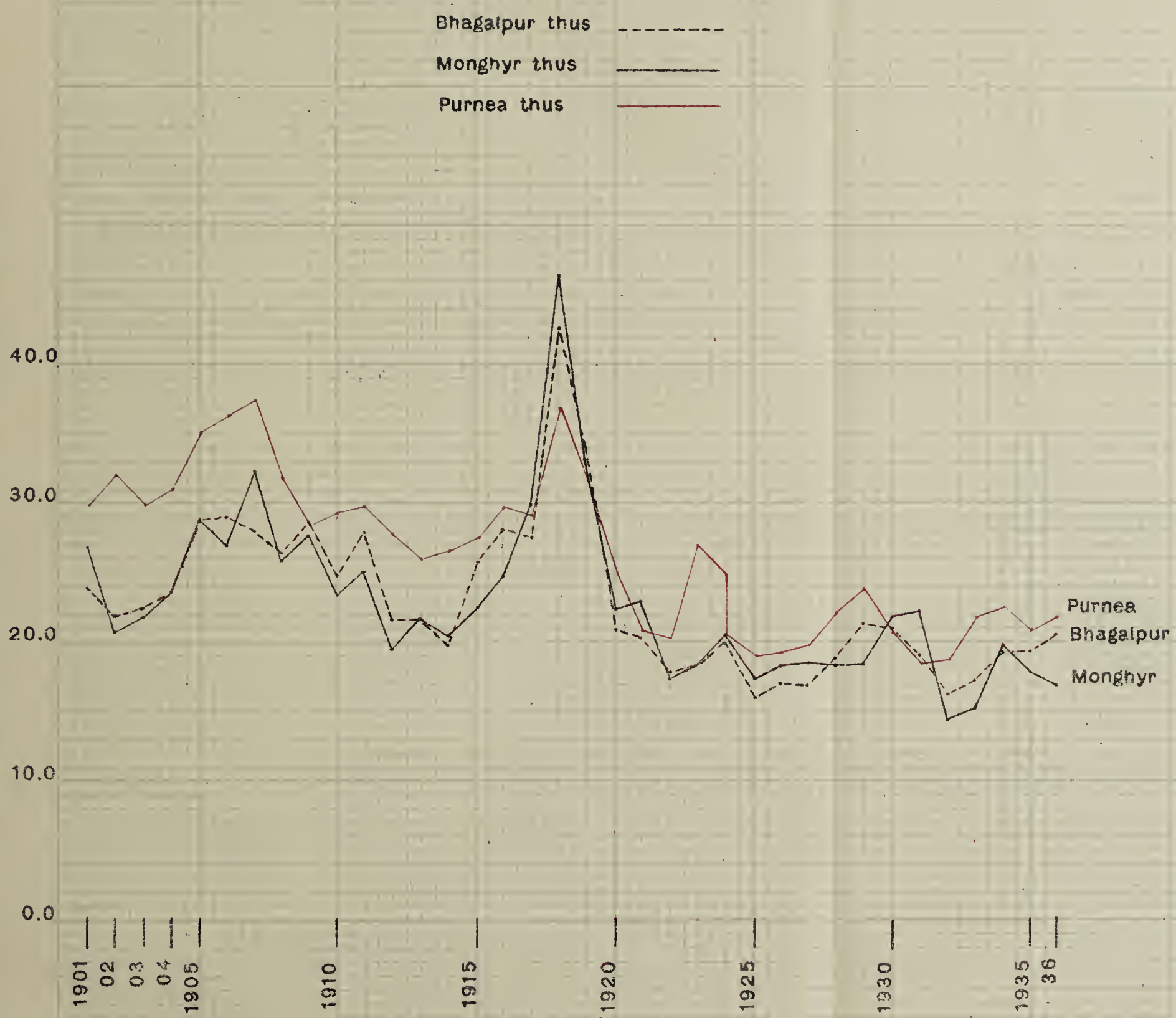






CRUDE FEVER DEATH RATES BY DISTRICTS 1901-36

FEVER DEATH RATES PER MILLE OF POPULATION



Drawn & Zincographed in colours in the Bihar Survey Office, Gulzarbagh, Patna.





diagrams. A glance at the diagram for Tirhut districts would show convincingly that after the pandemic influenza in 1918 the fever mortality curve in each of these districts do show the upward or downward trend simultaneously, but varying only in the degree of intensity. In the diagram for Bhagalpur it is noticed that except for the years 1918 and 1931 the district of Purnea has all along been maintaining the highest death rate in the group.

Malaria of a more or less static character may be said to be prevalent throughout the Province, the intensity depending on local conditions and variations in the epidemiological factors from year to year. The tracts particularly liable to be malarious being (1) a long belt in North Bihar contiguous to Nepal. The endemic area of Champaran and Purnea, particularly the latter has a long history of malaria. (2) Villages in the neighbourhood of hills and *ghats* in Shahabad and Gayā districts and (3) patches adjacent to some of the hill ranges of Chota Nagpur plateau. There is a possibility that malarious conditions here are associated with 'aggregation of labour', particularly in the mining areas. Black water fever also is reported from Singhbhum.

During the recent years North Bihar has come into prominence owing to repeated outbreaks of malaria occurring from time to time in one district or another. These outbreaks are definitely confined to the spill areas of certain rivers possessing one feature in common, e.g., changing their course too often. All these rivers, particularly Kosi in Bhagalpur, Kamla in Darbhanga and Bagmati in Muzaffarpur, intersect the respective districts from the North (Nepal) and ultimately merge in the river Ganges. One marked wave of malaria was noticed in 1929, followed by minor outbreaks. The biggest wave of malaria so far on record occurred during the year 1936. It appears that there was a slightly increasing incidence of malaria in some of the affected localities in the autumn of 1935, which in the usual course of events would have passed unnoticed if the 1936 epidemic had not been unusually severe. The Director of Public Health went round the epidemic area of Muzaffarpur thrice as the outbreak of an un-precedented type occurred there. The Assistant Directors toured throughout the affected areas. Ten epidemic doctors of the Public Health Department were detailed for malaria duty in the district of Muzaffarpur, three in Darbhanga and six in Purnea. A brief description of the outbreaks in each of the districts is given below.

*Muzaffarpur.*—The epidemic malaria started almost simultaneously in Minapur, Katra, Belsand and Majorganj thanas during the spring months, spread over Keotsa side in the month of May. After rains Shakra and part of Muzaffarpur thanas were also affected. Two hundred and twenty-four villages have been reported to have suffered from malaria and they are all situated in the spill areas of Bagmati, Puranidhar (which is said to carry Manusmara water from Nepal) and Burhi Gandak. In almost all the affected villages malaria claims a heavy toll. Besides 128,815 patients treated in the permanent hospitals and dispensaries of the district, 203,502 treatments were given in the 8 temporary clinics organised by the Government and the district health staff. Out of 740 pounds of quinine spent on treatment the Government supplied 700 pounds and only 40 pounds were provided for by the district board. An officer of this department was deputed late in the year to investigate into the conditions. His report has been published by this department.

*Darbhangā.*—Early in the year increased incidence of malaria was noticed. From April onwards the disease assumed very serious proportions causing considerable distress and mortality. Out of 198 villages affected as many as 69 villages were situated in the spill areas of Kamla and Balan rivers under the jurisdiction of Madhubani thana in the neighbourhood of Pandaul. Twenty-five treatment centres were opened with the help of the Government and the district board epidemic doctors. 114,475 persons were treated in these centres, in addition to 213,746 patients treated for malaria in the various hospitals and dispensaries in the district. Four hundred and thirty-nine pounds of quinine were used up for treatment and out of this amount the Government supplied 412 pounds.



*Bhagalpur.*—The year 1935 was a bad malaria year to the people of Supaul and Madhipura subdivisions but 1936 was worse still. During the year under review 1,441 villages in Supaul subdivision, 694 villages in Madhipura subdivision and 15 villages in Sadr subdivision were reported to be suffering from malaria. The affected villages in North Bhagalpur embrace an area of about 2,000 square miles. Majority of the villages lie within the jurisdiction of Partapganj, Tribeniganj, Supaul, Madhipura and Bangaon thanas. The Health Officer reports that 13,018 persons died of malaria only in five months' time. Ten epidemic doctors, 9 compounders, 61 sanitary jamadars and 22 coolies were appointed by the district board to combat the epidemic in addition to two assistant health officers working whole time on malaria. With this staff 12 temporary malaria clinics and 12 sub-centres were opened in North Bhagalpur. 833,470 persons were treated for malaria in the various hospitals, dispensaries and temporary clinics. Seven hundred and sixty-two pounds of quinine, 578 pounds of cinchona and 14 ozs. of tasteless quinine were used up for treatment. Out of the above amount, 350 pounds of quinine and 100 pounds of cinchona were supplied by the Government.

*Purnea.*—Epidemic malaria was first noticed in Dhamdaha thana in August, and in October there was a sudden outbreak all over the Araria subdivision, which is supposed to be the healthiest area in the district. There was increased incidence of malaria all over the district but the north and the western parts were badly affected. The district board appointed eight epidemic doctors and the Government deputed six. All these officers were in charge of the 15 temporary malaria clinics and 30 sub-centres. 144,109 persons were treated for malaria in the hospitals and dispensaries in the district against 84,374 treated in 1935. Three hundred and eighty-nine pounds of quinine sulph and 231 pounds of cinchona febrifuge were purchased by the district board for the year, and the Government supplied 300 pounds of quinine.

*Champaran.*—The epidemic areas of Bagaha, Ramnagar, Shikarpur and Mainatand thanas suffered from increased malaria. Some cases occurred in Lauriya thana also. It is thought that this year the rivers were in high floods and by the end of September the wave of malaria started. During the month of December the Health Officer carried out a spleen census in some of the villages and spleen rate was found to be more than 30 per cent in the majority of cases. 893 villages were visited and 4,534 patients were treated by the Health Department in addition to 91,889 (62,616 in 1935) cases in the permanent hospitals and dispensaries. The disease here did not cause any increase in mortality.

*Monghyr.*—Minor outbreaks of malaria were reported from some of the villages in Gogri, Bukhtiarpur, Choutham and Khagaria thanas late in the year. Three epidemic doctors were appointed by the district board. With proper treatment the outbreaks quickly subsided.

*Manbhum.*—Increased incidence of malaria were reported from some of the thanas of the Sadr subdivision. An officer of this Department who carried out a short-period survey states that certain amount of endemicity exists in the villages situated near the hill ranges spreading over the southern and western parts of the district. Patamda, Baghmundi and Bundwan thanas are comparatively worse. The highest spleen rate observed was 84 per cent in one of the villages at the foot of Dalma range.

The health staff of the district board distributed quinine to 20,828 sick persons in addition to 54,423 persons treated for malaria at the hospitals and dispensaries during the year. The respective figures for 1935 being 12,121 and 31,844. Out of 77 pounds of quinine used by the health staff of the board 30 pounds were supplied by Government. The wave of malaria caused no increase in mortality, same as noticed in Champaran.

2. *Sale of quinine.*—Sale of quinine treatments in the various post offices in the province has been in force for many years. These treatments are supplied to the post offices by the Civil Surgeons, who obtain their requirements from the Presidency Jail at Calcutta where the products of the cinchona plantations in Bengal are made up into tablets. Twenty



tablets of four grains each, packed in small tubes constitute one treatment and is sold at the post office at five annas three pies per treatment. The amount purchased annually cannot be regarded as satisfactory.

406.4 pounds of quinine sulphate in tablet form were sold during the year under report as against 316.9 pounds in the previous year. The largest quantities were taken by the districts of Purnea, Ranchi, Muzaffarpur, Champaran, Santal Parganas and Manbhum.

3. *Spleen census*.—The Assistant Director of Public Health, Chota Nagpur Circle carried out spleen census during his vaccination tours in the districts of Ranchi, Manbhum, Hazaribagh, Singhbhum and Santal Parganas.

## CHAPTER IX.

### MATERNITY AND CHILD WELFARE.

1. The Bihar Maternity and Child Welfare Society continued to work through a Managing Committee with Lady Sifton as the President, the Inspector-General of Civil Hospitals as Honorary Secretary and the Accountant-General, Bihar, as Honorary Treasurer. There are six Maternity and Child Welfare Centres in the province, namely three in Patna, and one each in Monghyr, Muzaffarpur and Ranchi. Besides these there are four midwifery circles, viz. one each in Patna, Darbhanga, Manbhum and Ranchi. The Society has its own fund and also gets an annual grant from the local Government which in the financial year 1936-37 was increased from 6,900 to 9,000. The Society makes contribution to the various centres which are ordinarily maintained by subsidies from the local bodies, donations raised from the local people, help received from the Victoria Memorial Scholarships Fund and the Provincial Branch of the Red Cross Society. The municipalities of Ranchi, Darbhanga, Purulia, Dhanbad and Patna Administration Committee also maintain a midwifery service for their respective areas. One midwife is employed by each of the municipalities. The midwives conduct normal labour cases at the houses and also train indigenous *dais* at the maternity centres.

Some of the industrial areas of the province such as Jharia Mines Board of Health and Tata Iron and Steel Company have their own maternity and child welfare organisations. There are three maternity circles on the Jharia Mines Board of Health, viz., at Sijua, Kenduadih and Jharia. These circles remained in charge of qualified health visitors. The Maternity and Child Welfare Centre in the Dhanbad municipality continued to be worked by a qualified midwife under the supervision of the Chief Medical Officer of the Board. The payment of a reward of annas four for each case conducted by indigenous *dais* under the supervision of a health visitor was continued. All indigenous *dais* undergoing training under various centres were also paid a reward of annas two per attendance. All the *dais* working under the maternity scheme are supplied with fully equipped boxes for conducting normal labour cases.

The Maternity Ward of the Tata Hospital at Jamshedpur remained open throughout the year and the Lady Doctor employed there continued to conduct labour cases free at the houses in the local areas.

No maternity and child welfare centre exists exclusively for the benefit of the rural areas of the province.

The maternity and child welfare organisation in the various districts are as noted below :—

*Purnea*.—The Purnea municipality has sanctioned the opening of a maternity centre in the town and has provided Rs. 1,000 in the budget.

*Bhagalpur*.—One maternity and child welfare centre has been started in the town since 1934 and has been working satisfactorily.

*Monghyr*.—The Lady Stephenson Child Welfare Centre was kept open throughout the year and the work was carried out by the Lady Health



Visitor. During the year the centre was fortunate to receive a grant of Rs. 13,000 from the Silver Jubilee Fund for construction of a new child welfare centre and Rs. 1,000 by His Excellency the Governor of Bihar and Orissa for equipment. The work of the construction has started and it is hoped that the new centre will open shortly.

*Darbhanga*.—A midwife is maintained by the Darbhanga municipality who attends labour cases. A midwife is also maintained by the Darbhanga district board to train village *chamains*. She also attends labour cases in rural areas so far as possible.

*Champaran*.—There is no maternity and child welfare centre in the district. One midwife has been engaged who tours throughout the district, trains local *chamains* and attends labour cases as far as possible.

*Muzaffarpur*.—A maternity and child welfare centre has been in existence in this town since 1931 and a Lady Health Visitor is employed. A baby show was organised and prizes were awarded to the best babies. This method of propaganda has undoubtedly increased the scope of the centres. A suitable building for the clinic has been constructed and quarters for the health visitor provided in the same compound.

*Patna*.—There are three child welfare centres within the Patna City municipality. Trained lady health visitors are in charge of these centres. The Maternity Supervisor visits these centres as Honorary Doctor, Indigenous *dais* are trained in these centres and they get four annas each for attending the centres.

*Gaya*.—At present there is no scheme in this district. The Gaya municipality should institute a child welfare centre and maternity scheme. It is regrettable that in the second town of Bihar no attempt in this direction has been made so far.

*Shahabad*.—Trained *dais* have been provided in district board dispensaries and hospitals. These *dais* train the local *chamains* within a radius of five miles from the dispensary for conducting labour cases.

*Ranchi*.—A maternity and child welfare centre has been organised in the Ranchi town since the year 1935 and a lady health visitor has been appointed. Trained midwives have also been appointed by the Ranchi municipality and Doranda Notified Area Committee.

*Singhbhum*.—There is a proposal to open maternity and child welfare centres at Chaibassa and Jamshedpur. A fairly decent sum has been collected in the latter place.

*Manbhum*.—There is one midwife attached to the Sadr Hospital at Purulia who attends to delivery cases in the town without any fee.

A set of rules has recently been framed by the Bihar and Orissa Council of Medical Registration and Medical Examination Board and facilities for the training of midwives were as usual provided in most of the bigger hospitals of the province. Classes were also held for the training of indigenous *dais* in accordance with the Victoria Memorial Fund Syllabus in most of the important Sadr and subdivisional hospitals. Each of the pupil *dais* was awarded the usual stipend of Rs. 5 to Rs. 10 a month from the Victoria Memorial Fund and the local bodies fund for their training periods. The Bihar and Orissa Medical Examination Board hold examinations for the midwives twice a year. Thirteen midwives passed the Board's examination during the year. The Bihar and Orissa Nurses' Registration Act, 1935 was passed last year. The Act provides for the compulsory registration of the midwives declared to have been successful at the Board's examination and authorises the local bodies for making bye-laws prohibiting unregistered persons from practising as nurses' health visitors, midwives and trained *dais*. It is expected that these legislative provisions will prove definitely useful in promoting clean midwifery and people will soon begin to appreciate the value of the activities of the maternity and child welfare centres.



## CHAPTER X.

## SCHOOL HYGIENE AND MEDICAL INSPECTION OF SCHOOL CHILDREN.

1. The Government maintain a special staff of officers for the medical examination of scholars of the high English schools since 1920. This system was subsequently extended to the middle English schools at places where there is also a high English school.

There are four School Medical Officers and four Assistant School Medical Officers for the four divisions of the province. There is also a Lady School Medical Officer for the girls' schools of the Province. These officers visit all the high schools and most of the middle English schools in their respective divisions. Besides these, some of the Medical Officers of Health of the district boards where such officers exist, also supervise medical examinations of the students, carried out by the district board Medical Officers, of the middle schools which were situated at places where there is no high schools.

2. *Medical Examination of Scholars.*—Usually all the new scholars admitted to the schools since the previous visit of the School Medical Officers are thoroughly examined and a complete medical history of each new entrant is recorded on a prescribed form. All scholars found to be suffering from physical defects at a previous inspection are re-examined and a further note on the defects is recorded. At the end of the inspection, parents or guardians of boys found to be suffering from physical defects are informed of the particular defects the boys are suffering from and they are recommended to consult their medical attendants or to take the boys for treatment to the nearest dispensary. The medical officers of the dispensaries or hospitals are required to note on the counterfoils of the forms, the treatment the boys have received and the results. Attempts have also been made since 1933 to start school clinics attached to each of the divisional hospitals.

The following is a statement showing the number of children examined by each of the School Medical Officers and number recommended for treatment in 1936 :—

Divisions.				Number of children exāmined.	Number recom- mended for treatment.	Percentage of those re- commended.
Patna	...	...	...	3,020	1,269	42.01
Chota Nagpur	...	...	...	1,550	918	59.2
Bhagalpur	...	...	...	3,402	1,166	34.2
Tirhut	...	...	...	1,604	725	45.1

The Lady School Medical Officer examined 485 girls out of whom 419 or 86.39 per cent were found defective or diseased. The main defects pointed out being unclean nails and head, poor nutrition and enlarged tonsils.

From the statement noted above it would appear that out of 9,576 boys examined 4,140 or 43 per cent suffered from some kind of ailments. The majority of them as usual had minor troubles, viz., enlarged tonsils, caries teeth, scabies, and pulpable glands in the neck. 235 or 2.4 per cent of the boys were found to be suffering from common eye diseases, e.g. trachoma, conjunctivitis, blepharitis and corneal opacity whilst 6.8 per cent of them suffered from visual defects due primarily to errors of refraction. 223 or 2.3 per cent of the boys had heart troubles. Out of these 44 suffered from organic lesion of heart, most of them having valvular troubles, 118 boys or 1.2 of those examined showed enlargement of spleen and 6 were suspected as suffering from pulmonary tuberculosis. Five cases of leprosy were also detected in the Chota Nagpur Division. Quite a number of children were found un-vaccinated.

*Lectures on Hygiene.*—The School Medical Officers also deliver lectures on hygiene, sanitation and the epidemic diseases common in India to the students of the X and XI classes of the high English schools. These are mostly illustrated with magic lantern slides. 1,397 lectures were delivered during the year. Attendance at ten such lectures is compulsory for every boy before he is allowed to sit for the Matriculation Examination, but as hygiene is neither a compulsory nor an optional subject in the Matriculation Examination, the lectures do not receive quite the attention they deserve.



These lectures afford an opportunity for the propagation of knowledge and information on public health subjects. They are expected to awaken an interest in the minds of the boys for healthy living and prevention of disease. During the summer vacation, these officers devoted themselves as in previous years to special propaganda work by arranging lectures and demonstrations for the village *gurus*, *maulavis* and sub-inspectors of schools in different selected centres.

The school and hostel buildings are regularly inspected by the School Medical Officers during their visit to each school. 230 such school premises were inspected during the year. These inspections have definitely helped in recent years to improve the sanitation and to rectify defects in the sanitary convenience and drinking water-supply for both day and night scholars.

The School Medical Officers during their inspection to each school also look into the arrangements made for physical exercises, games and suitable sitting accommodation in the class rooms and by their constant advice they try to impress upon the head masters, guardians and parents that in their zeal to impart mental education, the physical development of the child should not be neglected.

The scheme of providing mid-day school lunch based on a fee of annas six per school child per month has been introduced in some of the schools in the Chota Nagpur Division.

## CHAPTER XI.

### HEALTH PROPAGANDA.

1. A Public Health Bureau on a modest scale is attached to the office of the Director of Public Health with the object of awakening public health conscience in the masses, to stimulate their interest in public health matters and to educate them by the persistent presentation of simple sanitary principles by such methods as lectures, leaflets posters, magic lantern demonstrations and press publications.

The Officer-in-charge of the Public Health Bureau carried out propaganda work as usual, during the year. A large number of pamphlets and leaflets were issued from time to time to the local bodies for distribution among the visitors at the different exhibitions organised in connection with the fairs and festivals in the province and many popular articles on public health subjects were contributed to the local press. A special health section was organised at the provincial exhibition held at Patna.

Lectures illustrated with magic lantern slides and demonstrations on public health subjects were given to the cadets of the Police Training College at Hazaribagh. Hygiene lectures and magic lantern demonstrations were also given by the Officer-in-charge, Public Health Bureau at a special course organised by the Co-operative Department for the training of Rural Welfare Officers (Co-operative Educational Inspectors and Village Guides) at Patna.

Urdu translation of the pamphlet entitled "Tuberculosis Problem in Bihar and Orissa" was prepared and widely circulated in the province by the Public Health Bureau.

The Assistant Directors of Public Health gave short lectures on sanitation and hygiene during their vaccination inspection tours in rural areas. 344 such discourses were held during the year. They are also provided with a magic lantern and complete sets of slides on all important topics of health.

2. *Red Cross Society*.—The Red Cross Health Museum was open to visitors throughout the year 1936. It is lodged in the north verandah of the Patna Museum which has been specially enclosed with glass to provide permanent accommodation for the health exhibits.

The following models, viz., one each on "Rat Proof Godown", "Lady Health Visitor", "Sanitary Privy", "Sanitary Well", "Sanitary House", "Insanitary House" and "Insanitary Well" were purchased during the year at a cost of Rs. 78 out of the contingent grant of the Public Health Bureau and were added to the exhibits at the Health Museum.



for the benefit of the visitors. Twelve illustrated and coloured posters on the causation and prevention of tuberculosis received from the Indian Red Cross Society were also mounted on cardboards and put up as exhibits in the Museum.

The Health Museum continues to attract every year a large number of visitors who are drawn from every part of the province. 132,781 persons as against 149,642 in the previous year visited the Museum from the 1st January to 31st December 1936. Of these 22,597 persons visited the Museum on the 28th November 1936 on the occasion of the Sonapur Fair as against 24,166 of the previous year.

The Officer-in-charge, Public Health Bureau attended the Museum as usual on all important occasions during the year and arranged for the distribution of leaflets on public health subjects in English and the vernaculars among the visitors.

In view of the decision to devote the greater part of the money collected in the province for King George V Memorial Fund towards anti-tuberculosis scheme in all the districts of Bihar, details of a scheme were worked out whereby it is proposed to establish a tuberculosis clinic in the headquarters of every district. It is proposed to allot a sum of Rs. 10,000 to each district for the construction of the clinic and to approach Government for a small annual grant for each district for the maintenance of the clinic. This grant will be made only to those districts that will guarantee to provide a sum at least equivalent to the grant towards the cost of running of the clinic. It is also hoped that a Special Tuberculosis Officer to supervise and co-ordinate the work of the clinic in the various districts will be appointed by Government.

Dr. Hargobind Prasad, M.B., D.P.H., Health Officer, Ranchi municipality was deputed to undergo a special course of training in tuberculosis held in Calcutta under the auspices of King George Thanks Giving (Anti-Tuberculosis Fund) from the 6th to 31st January 1936.

## CHAPTER XII.

### PUBLIC HEALTH ADMINISTRATION.

1. The statement below shows the receipts and expenditure under the head "33-Public Health (Medical) for the year 1934-35 and 1935-36":—

Head.	Receipt.		Head of expenditure.	1934-35.		1935-36.	
	1934-35.	1935-36.		Budget provision.	Expenditure.	Budget provision.	Expenditure.
1	2	3	4	5	6	7	8
	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
Sale proceeds of sera and vaccine, etc.	39,794	38,384	Public Health establishment. ...	1,82,241	1,59,864	1,64,434	1,68,253
			Medical Examination of scholars and teaching of hygiene in high schools ...	45,654	36,707	43,000	38,261
			Bubonic plague ...	6,000	13,767	6,000	9,383
			Malaria ...	11,600	7,740	10,600	8,429
			Other epidemic diseases	1,18,823	1,34,157	1,29,463	1,16,737
			Publicity campaign ...	1,786	1,715	1,802	2,094
			Public Health Laboratories ....	23,571	21,919	22,097	18,872
			Total ...	3,99,625	3,75,869	3,77,396	3,60,029



All requisitions of the Director of Public Health were met by Government and the funds were made available in most cases.

2. The three Assistant Directors of Public Health, one for South Bihar Circle, with headquarters at Patna, one for North Bihar Circle, with headquarters at Muzaffarpur and one for Chota Nagpur Circle with his headquarters at Namkum, in the Ranchi district continued to function.

The Assistant Directors of Public Health are employed to investigate into the epidemics, suggest measures of control and to see that the actions taken are adequate to combat the epidemic. They supervise the prophylactic measures, such as vaccination, cholera and plague inoculations. They inspect and report on all nuisances occurring in their areas. A systematic inspection of all district boards, municipalities and high schools, also the fairs and melas are included in their legitimate duties. They do propaganda work by lectures and magic lantern demonstrations. Regular inspection of mines in their respective circles have also been added to the routine duties of the Assistant Directors of Public Health. Their supervision and expert advice have done much to assist the local bodies towards the improvement of all sanitary matters that may prejudice the health of the people.

There are four School Medical Officers and four Assistant School Medical Officers for the four divisions of the province. There is also a Lady School Medical Officer for the girls' schools. In addition to her own duties she is also employed as a Medical Inspectress of Factories in accordance with the recommendation of the Royal Commission on Labour to examine the health of the female employees of factories in Patna district.

Epidemic doctors with L. M. P. qualification are employed temporarily to help the local bodies in combating epidemics in the province. Over and above those, one hundred reserve of vaccinators are provided for duties in the districts, who in addition to vaccination work are also trained to carry out disinfection during epidemics.

The Medical Officer of Health who acts as Personal Assistant to the Director of Public Health also holds charge of the Public Health Bureau attached to the office of the Director of Public Health. He contributes popular articles to the press on the public health subjects and distributes pamphlets and posters to the local bodies. He delivers lectures on hygiene to the police cadet at the Police Training College, Hazaribagh, and also at melas and fairs with the aid of magic lantern slides. He is also the Health Officer of the Patna Administration Committee.

Seven Medical Officers of the Government Public Health Cadre have been lent to the district boards of Muzaffarpur, Saran, Champaran, Gaya, Bhagalpur, Shahabad and Darbhanga to work as Health Officers of the district boards.

Three Medical Officers of the cadre have also been lent to the municipalities of Patna, Gaya and Ranchi to work as Health Officers.

A Medical Officer was also employed as Chemical Analyst at the Public Health Laboratory where water and articles of food are analysed but the services of this officer was transferred under the Bengal Government in September, 1935, and since then his Assistant who is a non-medical man has been temporarily allowed to work in his place. A Medical Officer of the cadre has also been appointed as Officer-in-charge of the Bacteriophage Laboratory and a medical graduate has been temporarily employed as his Assistant.

A Medical Officer of the cadre also works as Superintendent of Vaccine Depot at Namkum. Vaccine Lymph is manufactured and distributed throughout the province from this depot.

### CHAPTER XIII.

The Annual Vaccination Report is submitted as an annexure to this report.



## CHAPTER XIV.

## OTHER PUBLIC HEALTH SERVICES.

1.. *Jharia Mines Board of Health*.—The Jharia Mines Board of Health controls the sanitation of Jharia and the neighbouring mining areas which extend over an area of 787 square miles and covers the whole of the Dhanbad subdivision with the exception of Dhanbad municipality. According to the census of 1931, the population of this area is 504,736 and the estimated population for 1936 excluding that of the municipality of Dhanbad is 531,401 as against 526,322 of 1935.

The total number of births during the year was 13,781 giving a birth rate of 25.93 as against 27.08 of the previous year while the total number of deaths was 8,556 recording death rate of 16.10 as against 20.43 of the preceding year. The death rate was decreased by 4.33 due chiefly to the absence of cholera epidemics in the mining area during the year. The infant mortality rate was reported to be 108 as compared with 102 in the previous year.

The total number of deaths from cholera, small-pox, fevers and respiratory diseases was 37,322, 5,595 and 428, respectively as compared with 446, 51, 7,265 and 483 in the preceding year. 217 cases of venereal diseases were reported by the colliery doctors. The preventive measures against cholera and small-pox were taken by the health staff of the mining board. 6,350 anti-cholera inoculations and 75,840 vaccination operations were performed during the year.

*Drainage*.—The drainage scheme which was completed last year is now in perfect running order.

*Water-supply*.—In the course of the year under report seven more collieries were connected to the Jharia Water Board Mains, bringing the total number of the connected collieries to 185. It is considered that the collieries not yet linked up with Jharia Water Board Supply constitute a source of danger to the neighbouring ones. Notices were, therefore, served on six collieries by the board requiring them to link up with the Jharia Water Board Mains. The question of adequate supply of pure water to the various outstill liquor shops in the mining area is still under consideration of the authorities concerned. The Board reserved one tank at Katras for drinking throughout the year and 9 tanks temporarily for the prevention of cholera. These were guarded by the *chaukidars* deputed by the Board and the villagers. 52 samples of water were examined chemically and 625 bacteriologically at the Board's own laboratory.

*Sanitation*.—Two rubbish lorries for carrying the refuse to the dumping ground were maintained throughout the year in Jharia town and refuse carts, introduced in 1935, carried refuse from the narrow lanes where the lorries do not go. 120 public latrines provided by the board were maintained during the year.

*Housing*.—The five years housing programme was enforced during the year. The improvement affected in this direction during the past two years has been maintained.

*Maternity and Child Welfare*.—The work in connection with child welfare scheme was continued as usual. The whole area is divided into three circles, namely Sijua, Kenduadih and Jharia. Sijua Circle has three centres, namely Sijua, Loyabad and Angarpathra while Kenduadih circle has nine centres and Jharia circle one centre. Three qualified health visitors were in charge of these circles. They regularly visited the centres, supervised ante-natal and post-natal conditions and conducted the practical training of the indigenous Dais. Most of the normal labour cases were attended by the Dais who had received training in the previous years. These Dais have all been supplied with fully equipped boxes containing outfit required for conducting normal labour cases and are now given annas four as a reward



from the board's fund for conducting each labour case under the supervision of the Health Visitors. Soap, oil, milk and medicines were also distributed to mothers and children at all centres throughout the year.

*Leprosy.*—All Leprosy Relief Work within the Jharia Mining Settlement continued to be carried on by the Dhanbad and District Leprosy Relief Fund under the supervision of the Chief Medical Officer of the Board, who is the Honorary Secretary of the Fund.

*Clinics.*—The Fund continued to maintain the three clinics at Jharia, Katras and Dhanbad. The management of the clinic at Pandra which was originally vested in the district board, was made over to the fund by the district board in September, 1936, with a view to secure uniformity of procedure and unity of control over leprosy work within the Mining Settlement area. With the exception of the clinic at Pandra which is held once a week, the clinics at other three places are held twice a week. The total number of treatments given during the year was 22,984, out of which 818 were new cases.

*Food Adulteration.*—483 samples were examined in the Board's laboratory, of which 173 were found to be adulterated and 134 prosecutions were carried out.

*2. Public Health Laboratory.*—During the year 3,035 articles were chemically and bacteriologically examined as compared with 2,847 articles in the preceding year. Of these 15 samples were received from private individuals or firms for analysis on payment of fees. The increase in the number of samples analysed is due to the fact that the local bodies are beginning to realise the importance of the Food Adulteration Act and send greater number of samples of food stuffs.

One thousand two hundred and six samples of water were examined bacteriologically of which 492 samples were also examined chemically.

The following were the sources and the number of analysis :—

Water-works	...	...	...	...	...	865
Jails	...	...	...	...	...	148
Other sources	...	...	...	...	...	193

*Food Stuffs.*—The total number of samples examined was 1,825, as opposed to 1,740 of the previous year. The samples were received from the 19 districts of the province and Orissa. No samples were received from the districts of Palamau and Angul.

*Ghee.*—Seven hundred and eighty-two samples of *ghee* were examined out of which 353 or 45.14 per cent were found below the standard or adulterated as opposed to 58.17 per cent of the previous year. 132 samples were found to be of doubtful purity.

*Mustard oil.*—Six hundred and twenty-seven samples of mustard oil were examined out of which 253 or 40.35 per cent were found to be adulterated or below standard as opposed to 37.87 per cent of the previous year. Four samples were found to be of doubtful purity.

*Sweets.*—One hundred and thirty-one samples of sweetmeats (*Methai*, *Puri Kachauri*, etc.), were examined with a view to find if they were made of pure *ghee* or oil. Out of 131 samples, 65 samples or 49.61 per cent were found to have been made of *ghee* or oil which was below the standard or adulterated as opposed to 70.27 of the previous year.

*Milk.*—91 samples of milk were examined out of which 58 samples or 63.73 per cent were found to be adulterated.

*Attā.*—137 samples of wheat-flour were examined. All of them were found free from foreign starches.

*Miscellaneous.*—22 samples of rice were examined. No change in the rice grains could be detected by microscopic examination in any of the



samples. Eight samples of ground-nut oil were examined of which 3 were found adulterated. Out of 7 samples of linseed oil examined, 6 showed adulteration. One sample of Suji, 14 samples of vegetable products, 2 samples of common salt, 1 sample of niger-seed oil, 1 sample of *Mahua* oil and 1 sample of sesame oil were also examined. Three samples of disinfectant fluids were analysed with a view to find out the Rideal-Walker-coefficient. One sample of vegetable powder (Nigrahi) said to be the medicine for birth control, received from a private person of the district of Saran was examined and was found to contain vegetable alkaloids. It was declared unfit for human consumption.

*Analysis of Excisable Articles.*—The Laboratory for Excise work was started in December 1934 and continued to function throughout the year under report. The Assistant Excise Chemist appointed in 1934 was designated as the Officiating Chemical Examiner for Excise work on the transfer of Rai Bahadur Dr. K. N. Bagchi to Bengal and was allowed to continue his work independently. Four hundred and ninety samples of excisable articles were analysed and 371 mathematical instruments such as thermometers, etc., were standardised during the year in the Laboratory.

3. *Bacteriophage Laboratory.*—The Bacteriophage Laboratory continued the production of cholera phage on a large scale as before. 102,830 phials of cholera phage of 50 CC each were prepared and 81,106 phials were distributed during the year on requisitions received through the Director of Public Health to various towns and districts of the province. Besides this, the basic research on bacteriophage was continued. It has been found that many cases of acute bacillary dysentery pass off as cholera. This necessitated introduction of dysentery phage also in our phage mixture. Experiments were conducted to produce dysentery phage on a large scale of high virulence, active against both Shiga and Flexner bacilli. This was mixed with the cholera phage suspension issued for therapeutic purposes in the proportion of 1 in 15. This proportion did not lower the potency of the cholera phage and the phage remained active against dysentery bacilli.

Efforts were made to improve the media for the production of cholera phage which would give the optimum growth of vibrios and bacteriophage. After a considerable number of experiments it was found that the optimum number of bacteriophage mixture was obtained by using lactose in the proportion of 0.1 per cent and glucose 0.048 per cent in the media.

Changes in the variants of cholera vibrio as produced by phage were studied. Secondary cultures were produced by the action of each pure live phage on culture 653 Shillong. Each of these was plated out and different colonies were picked up. These were resistant to the phage from which they were prepared. They were agglutinable and the morphological characters and fermentation re-actions were typical. The original broth tubes containing the secondary cultures were kept at room temperature and after six weeks each of them was plated out. The secondary cultures of PE, H, K, L gave two types of colonies. One transparent typical vibrio colony like the colonies in other plates, and the other a typical colony with a distinct thick white ring at the margin. The transparent colonies were typical agglutinating vibrios but the colonies with a thick white ring were non-agglutinable. They were resistant to the phage from which they were originally prepared but they were touched by other phages. Morphologically they still showed the vibrio character. Thus an agglutinating vibrio can be altered by the action of some of the types of phage, so as to render it un-recognisable by the ordinary agglutination tests. This, as also the variants from the combination of phage are being investigated further.

New types of phage K, L, M were studied for their virulence tests, generation time. It is very difficult to preserve phage L in the liquid media for a long time. It must be grown on solid and liquid media alternately. Phage K and L are absolutely rough phage and they do not touch the smooth vibrios. Type M touches S R vibrios.



Investigation was undertaken to test the vitality of phage in water. Phage mixture was put in ordinary well and the water tested at an interval of 24 hours. It was found that the phage is preserved well enough to be used prophylactically up to 72 hours.

*Possibility of using phage as prophylactic in place of cholera vaccine.*—As the phage filtrates contain a high concentration of anti-genic material derived from bacterial bodies necessary for the development of antibodies, the question is whether they can be used in producing immunity. Thus they should play an important role in prophylaxis as they do in therapy.

Larkum, experimenting with typhoid phage has observed that serum of persons receiving one dose of bacteriophage filtrate showed agglutination equal to those receiving one dose of vaccine, but the antibodies after six months in those receiving one dose phage were higher than in persons receiving one dose of ordinary vaccine and equal to those having had three doses of vaccine. No untoward re-action of any importance occurred in the phage injected group of cases.

Other bacteriologists have also confirmed the views. Topley and Wilson have observed that a phage was an effective immunising agent when injected 14 days before the injection of a total dose of the culture.

Experiments are being carried on in rabbits by injecting them with phage and cholera vaccine and testing their serum.

The sera which was used for the diagnosis of typical vibrio cholera was raised against the Inaba Strain of vibrio cholera an internationally recognised strain of stable type. The 'O' serum was raised in rabbits by means of the dried 'O' antigen prepared by Brucewhite and issued by the Central Research Institute, Kasauli. This method has been recognised as a standard one.

*Typhoid Phage.*—Work was started to study the typhoid phage systematically. Five types of Typhoid phage, five of Para-Typhoid A and 3 of Para-Typhoid B were isolated. Further studies of these phages are being done. The mixture of all these types was prepared and issued to the leading practitioners and in the hospitals for experiment. No detailed report has been received but the results have been reported to be very encouraging.

Choleraphage is now issued for sale to the public at Re. 1 per 50 CC phials and annas six per 5 CC ampoules. Choleraphage was issued to Orissa Government on payment at a concession rate.

*Field Work.*—Choleraphage was used throughout the year in the cholera affected districts of the province. The reduction of the quinquennial average of cholera mortality rate during years 1931-35 and 1936 in the two districts of Muzaffarpur and Purnea where phage was exclusively used has been un-precedented, as will appear from the statement below :—

Districts.	1901-05.	1906-10.	1911-15.	1916-20.	1921-25.	1926-30.	1931-35.	1936.
Muzaffarpur	3	3	4	6	1.5	4.2	.3	0.01
Purnea ...	1.3	4	1.1	2.4	1.8	2	.5	0.2

This definitely shows by comparison that choleraphage has effected a remarkable reduction in the cholera mortality rate in these districts. The maintenance of continued reduction of cholera mortality in 1936 almost definitely proves the prophylactic value of choleraphage. An examination of the recorded cholera mortality figures of these districts from 1901 to 1936 shows that the period of normal cholera periodicity wave has been tried exclusively with choleraphage with a definite reduction of cholera incidence.



The prophylactic value of cholera phage can now only be definitely established by its continued use in these districts.

Muzaffarpur.				Purnea.
Year.			Recorded deaths.	Recorded deaths.
1901	...	...	2,749	326
1902	...	...	13,299	209
1903	...	...	9,423	1,049
1904	...	...	8,612	736
1905	...	...	7,967	9,705
1906	...	...	12,072	17,579
1907	...	...	2,884	16,063
1908	...	...	8,145	5,375
1909	...	...	2,765	1,316
1910	...	...	24,016	4,035
1911	...	...	15,415	10,333
1912	...	...	19,797	1,164
1913	...	...	12,969	1,339
1914	...	...	1,054	1,767
1915	...	...	6,892	6,013
1916	...	...	23,317	5,359
1917	...	...	19,037	4,689
1918	...	...	32,356	4,228
1919	...	...	1,133	8,257
1920	...	...	1,644	154
1921	...	...	1,000	22
1922	...	...	6,398	726
1923	...	...	46	240
1924	...	...	7,721	1,999
1925	...	...	779	8,208
1926	...	...	3,249	4,283
1927	...	...	6,429	2,077
1928	...	...	9,578	6,369
1929	...	...	7,594	2,170
1930	...	...	38,017	5,609
1931	...	...	264	413
1932	...	...	142	413
1933	...	...	337	428
1934	...	...	530	1,323
1935	...	...	4,343	3,304
1936	...	...	49	184

As to the curative value of cholera phage the mortality rate of cases treated with phage as reported by the health officers of Muzaffarpur and Purnea are appended below. The curative value of cholera phage was accepted by the conference of the Indian Research Fund Association held in Calcutta in 1936 after an examination of a series of controlled experiments which were statistically scrutinised.

	Muzaffarpur.	Purnea.
	1936.	1936.
Total number of cholera cases treated with phage ...	195	134
Total deaths among phage treated ...	16	42.
Mortality per 100 among phage treated ...	8	3.1
Total cases not treated with phage but treated by village doctors and Vaid.	16	...
Total deaths among them ...	3	...
Mortality per 100 of cases treated otherwise than with phage.	18	...

## CHAPTER XV.

## GENERAL REMARKS.

1. *Epidemic dropsy*.—Beri-Beri was reported from the districts of Patna, Bhagalpur, Manbhum and Singhbhum during the year under report. Steps were taken by the municipal and district board authorities to instruct the people to avoid using over-polished rice and adulterated mustard oil and *ghee*. In the Bhagalpur municipality pamphlets were printed and distributed for selecting suitable nourishing diets. A report on epidemic dropsy in Manbhum district was received from the Director, School of Tropical Medicine and Hygiene, Calcutta in which it was pointed out that the cause of the outbreak of the disease might be attributed to the use of diseased rice. Further investigation on the subject is being carried out at the Tropical School and an interesting report is awaited. It is now strongly believed that the cause of Beri-Beri is due to the consumption of a deleterious substance of unknown nature or origin which might be present in certain supplies of mustard oil. A number of samples of rice, mustard oil and *ghee* were examined at the Government Public Health Laboratory and the results were communicated to the boards concerned.

2. *Incidence of Cerebro-spinal fever*.—Seventeen cases of cerebro-spinal fever were treated in hospitals and dispensaries of the province during the year as compared with 55 of the previous year. Two cases were admitted in the Patna Medical College Hospital, one died and the other left. One case was treated in Madhubani hospital of Darbhanga district one in each of Kishanganj and Katihar hospitals of Purnea district, two in Godda hospital of Santal Parganas, one in Barhiya dispensary of Monghyr and one in Saria dispensary of Hazaribagh districts.

3. *Leprosy Relief*.—The Bihar and Orissa Leprosy Relief Committee was constituted by the Government of Bihar and Orissa in August 1926 as the provincial branch of the British Empire Leprosy Relief Association, to receive and expend funds received from the Indian Council and to discharge all duties in connection with the leprosy work in the province. One meeting of the Committee was held during the year under the presidency of the Minister of Local Self-Government.

Sixty-three outdoor leprosy clinics functioned in the year as against 59 of 1935 and 20,611 patients were treated in them as against 17,813 of the previous year. Four new clinics were opened during the year, all in the district of Cuttack. Of the 63 clinics, three are maintained by Government, three by the Bettiah Raj, four by the Missions and the rest by the municipalities and the district boards with grant-in-aid from the Bihar and Orissa Leprosy Relief Committee.

4. *Notification of Infectious Diseases*.—The Bihar and Orissa Municipal Amendment Act, 1935 which provides for the compulsory notification of cases suffering from certain infectious diseases, namely cholera, small-pox, plague and tuberculosis by the occupier of the house, a manager of factory, Dharamshala, hotel or *sarai* where a case occurs and by the medical practitioner treating such a case, to the Health Officer, Civil Surgeon of the district or the commissioners, came into force in all the municipalities of the province from the 1st July 1935. Steps were taken to disseminate knowledge about the Act as widely as possible throughout the municipal areas of the province through the Assistant Directors of Public Health and the municipal health officers. With the enforcement of the Act it is expected that the municipal health staff will be in a position to undertake preventive measures as soon as a case is reported and thus check the further spread of the disease with greater celerity.

5. *Inspection of Mines*.—The Assistant Director of Public Health, Chota Nagpur Circle, as an ex-officio Medical Inspector of Mines inspected the following mines in the districts of Singhbhum and Hazaribagh:—

1. Iron Ore Mine of the Tata Iron and Steel Company, Ltd., at Noamundi.
2. Iron Ore Mine of the Indian Iron and Steel Company, Ltd., at Gua.



3. Copper Mine of the Indian Copper Corporation, Ltd., at Mosabani.
4. Iron Ore Mine of the Bengal Iron Company, Ltd., at Chiria and Duia.
5. Bhura '74' Mica Mine in Koderma Area.
6. Thani Mica Mine in Koderma Area.
7. Majhlee Mica Mine in Koderma Area.
8. State Railways Colliery near Giridih.

Considerable improvements were effected as a result of the inspection in the housing arrangements, conservancy, water-supply and provision for the speedy control of infectious diseases in these mining areas.

6. *Personal Proceedings and Office.*—During the year under report the office of the Director of Public Health was held by Lieutenant-Colonel J. A. S. Phillips, C.I.E., I.M.S., from the 1st January to the 31st March and again from the 14th October to 31st December and Lieutenant-Colonel S. L. Mitra, I.M.S., from 1st April to 13th October. Of the Assistant Directors of Public Health, Rai Bahadur Dr. B. P. Mozcomdar was in charge of the Chota Nagpur Circle throughout the year whilst Dr. S. M. Rahman remained in charge of the North Bihar Circle from the 1st to the 4th January, Rai Bahadur Dr. J. L. Das from the 5th January to 6th July and from 21st September to 24th October, Dr. L. M. Mukherji from 7th July to 20th September, Dr. Azizur Rahman from 25th October to the 27th November and Rai Sahib Dr. A. N. Chatterji from 28th November to 31st December. Rai Sahib Dr. A. N. Chatterji was in charge of the South Bihar Circle from the 1st January to the 27th November and Lieutenant-Colonel S. L. Mitra, I.M.S., from the 28th November to the end of the year.

7. *Touring.*—During the year, the Director of Public Health was on tour for 71 days and the Assistant Directors of Public Health, South Bihar, North Bihar and Chota Nagpur Circles for 117, 200 and 203 days respectively.

8. *Personnel.*—In conclusion, I would like to bring to the notice of Government the good work done by the Assistant Directors of Public Health, my Personal Assistant and Medical Officers of Health of Gaya, Bhagalpur and Darbhanga districts. Rai Bahadur Dr. B. P. Mozcomdar, Rai Bahadur Dr. J. L. Das and Rai Sahib Dr. A. N. Chatterji have given further proofs of their excellent and reliable work as Assistant Directors of Public Health. Dr. S. M. Rahman has carried out all his duties very satisfactorily. The work of Drs. Azizur Rahman, D. B. Mukharji, and Gobind Prasad in their respective districts has been commendable. Dr. S. K. Chatterji's work in Bacteriophage Laboratory has been quite satisfactory. Dr. Kalidas Mitra's special work in connection with Malaria in Muzaffarpur and Manbhum has been commendable.

S. L. MITRA, LT.-COL., I.M.S.,

*Director of Public Health, Bihar.*





# ANNUAL VACCINATION REPORT

## OF THE

### Province of Bihar for the year 1936-37.

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1. The statistics in the Vaccination Report are for the financial year while the statistics in the Annual Public Health Report are for the calendar year. The arrangement facilitates the inclusion of the figures for the complete vaccination season from October to March in the Vaccination Report.

2. *Staff.*—Lieutenant-Colonel S. L. Mitra, I.M.S., held charge of the office of the Director of Public Health, from the 1st April to the 13th October 1936, while Lieutenant-Colonel J. A. S. Phillips, C.I.E., I.M.S., remained in charge of the Department from the 14th October 1936 to the 14th February 1937 and Lieutenant-Colonel S. L. Mitra, I.M.S., from 15th February to the end of the year.

The whole province is divided into three circles for the purpose of Public Health Administration, namely South Bihar, North Bihar and Chota Nagpur. Each is under the charge of an Officer of the rank of the Assistant Director of Public Health. Rai Bahadur Dr. B. P. Mozoomdar was in charge of the Chota Nagpur Circle throughout the year. Rai Sahib Dr. A. N. Chatterji was in charge of the South Bihar Circle from the 1st April to the 27th November 1936, Lieutenant-Colonel S. L. Mitra, I.M.S., from the 28th November 1936 to the 14th February 1937 and Dr. S. M. Rahman from 15th February 1937 to 31st March 1937. Rai Bahadur Dr. J. L. Das was in charge of the North Bihar Circle from the 1st April to the 6th July and again from 21st September to 24th October 1936, Dr. L. M. Mukherji from the 7th July to 20th September 1936 and Dr. A. Rahman from the 25th October to the 27th November 1936 and Rai Sahib Dr. A. N. Chatterji from 28th November 1936 to 31st March 1937.

The provincial vaccination inspecting staff consisted of 11 District Inspectors and 25 Sub-Inspectors of Vaccination. Out of the 25 Sub-Inspectors of Vaccination three were employed at the Vaccine Depot, Namkum. The total number of vaccinators employed during the year was 1,187 of whom 78 were employed in towns and 1,109 in rural areas. Vaccination is performed by paid vaccinators in the municipal areas while licensed vaccinators are generally employed to perform vaccination operations in the rural areas. Each district has been divided into suitable small areas (*elakas*) and a licensed vaccinator who also has an apprentice with him is permitted to carry out vaccination within his area or *elaka*. The licensed vaccinator is allowed to charge a fee of annas two to four for each vaccination operation performed in the houses. There are also free vaccination depots in each *elaka* which are attended by the vaccinators on fixed days in a week and no fee is charged for carrying out vaccination at these depots. Besides these licensed vaccinators, paid vaccinators are also employed by the local bodies for short periods to deal with outbreak of small-pox. Over and above these, Government provide for the temporary appointment of one hundred paid vaccinators every year and Director of Public Health sanctions the appointment of these vaccinators by the local bodies or the Civil Surgeons for such periods as are considered necessary for combating small-pox epidemics.

3. *Operations performed.*—1,586,143 vaccination operations were performed during the year as against 1,774,176 during the previous year. This shows a decrease of 188,033 in the number of operations as compared with the figure for 1935-36.

There was a decrease of 49,346 in the number of primary operations and 140,570 in the number of re-vaccinations done during the year under report.



Of the total operations performed 72.52 per cent were successful as against 71.57 in the previous year.

1,550,949 operations were performed by the vaccination staff as against 1,740,865 done in the preceding year. Of these 980,315 were primary and 570,634 re-vaccinations as against 1,029,661 primary and 711,204 re-vaccination in the preceding year. Although vaccination is generally recognised as the only preventive measure against small-pox, it has not yet become as popular as it should be with the masses in the province. When small-pox breaks out in an epidemic form, the people show some degree of willingness to get their children vaccinated, but when the epidemic is absent the incentive is much less and the number of vaccinations performed also fall. This is illustrated by the fact that during 1926-27 when the disease broke out in an epidemic form, a greater number of vaccinations was recorded, but the number of operations fell during 1928-29 when fewer cases of small-pox occurred. Again during 1932-33 when an epidemic of small-pox prevailed in the province, the number of vaccinations increased by 368,090 operations over those performed in the preceding year while during the year 1934-35 which happened to be a milder year for small-pox the total number of vaccination operations appear to have been proportionately less and in the year 1935-36, 164,049 more operations were performed than the preceding year.

4. *Vaccination in municipalities.*—The number of operations performed in municipalities decreased by 62,932 as compared with last year's returns. The total number of operations performed was 135,297 and the number of successful operation was 59,826 of which 37,891 were primary and 21,935 re-vaccination, as against 39,618 and 42,515 respectively in the previous year. The ratios of success in municipalities were 91.43 per cent for primary operations and 23.37 per cent for re-vaccinations as compared with 87.32 per cent and 27.81 per cent respectively of last year.

5. *Vaccination in districts.*—The number of operations performed in rural areas was 1,415,652 as compared with 1,542,636 in the preceding year and the ratios of success were 98.20 per cent for primary operations and 32.68 per cent for re-vaccinations.

The districts of Patna, Gaya and Shahabad reported decrease of 28,568, 3,511 and 246 respectively. The districts of Muzaffarpur, Darbhanga and Champaran recorded decreases of 16,637, 21,800 and 15,337 respectively while Saran recorded an increase of 19,002. In all these districts vaccination is controlled by the health officers of the district boards.

The districts of Bhagalpur, Monghyr and Purnea recorded decreases of 44,432, 3,407 and 17,611 while Santal Parganas recorded an increase of 5,096 in the number of vaccination operations performed in these districts respectively. Vaccination in the rural areas of the districts of Bhagalpur and Purnea is controlled by the health officers of the district boards, but the Civil Surgeons still function as Superintendents of Vaccination in the districts of Monghyr and Santal Parganas.

The districts of Ranchi and Palamau recorded increases of 4,400 and 1,463 respectively while the districts of Hazaribagh, Manbhum and Singhbhum recorded decreases of 7,807, 3,248 and 53,058 respectively. The Civil Surgeons still continue to be the Superintendents of Vaccination in these districts because Health Organisation Scheme has not yet been introduced to them.

6. *Vaccination in towns and compulsory areas.*—Statement V shows that during the year 15,547 children under one year of age out of an available number of 25,503 or 60.96 per cent were successfully vaccinated.

The towns of Bihar, Dinapur, Tikari, Arrah, Jagdishpur, Sasaram, Sahebganj, Deoghar, Dumka, Hazaribagh, Giridih, Ranchi, Lohardaga, Daltonganj, Purnea and Jamshedpur show the smallest proportion of vaccination work done.



7. *Protection of infants.*—During the year under report the number of children under one year available for vaccination was 983,017 and the number of successful operations was 273,466 or 278 per thousand as against 276,796 or 267 per thousand successful operations out of 1,037,551 available children during the previous year. The protection of infants in municipalities is separately shown in Statement V. It gives a ratio of 661 per thousand of the surviving infant population as compared with 628 per thousand in the previous year.

These figures still remain unsatisfactory inasmuch as they show that nearly three-fourths of the total number of infants under one year were left unvaccinated in the rural areas and a little less than two-fifths in the municipal areas. This is attributed to the common prejudice of the people against vaccination at an early age. Though primary vaccination has been made compulsory in the majority of the districts and all municipal towns in the Province, vaccination to the infants and children is avoided by many people. There are obvious advantages in retaining the present age limit for compulsory primary vaccination. No untoward complication occurs after early vaccinations and the people should be educated in the benefit of early vaccination because the sooner an unprotected child is vaccinated, the quicker it acquires protection against the disease and ceases to remain a source of danger to the community.

8. *Incidence and mortality of small-pox.*—The total number of deaths that occurred from small-pox in the province during the last ten years was 154,355.

During the first five years the number of deaths was 50,892 while during the next five years 103,463. In each of the last five years the mortality was as follows:—18,450, 28,747, 16,871, 21,179 and 18,216. The provincial ratios of the mortality from small-pox per thousand population during the last five years have been 0.57, 0.89, 0.52, 0.65 and 0.56. There was a decrease in the incidence of small-pox in the province in 1927-28. In 1928-29 there was a further reduction and in 1929-30 there was a still further reduction in the number of cases. In 1930-31, there was a small increase over the figure of 1929-30. In 1931-32 there was a further increase over the figure of 1930-31. In 1932-33 there was still further increase and in 1933-34 there was recorded a great increase over the figure of 1932-33. In 1934-35 the mortality figure fell down considerably. In 1935-36 the figure was slightly more than the preceding year. The figure for the year under report is less than the preceding year.

9. *Prevention of small-pox.*—The proportion of vaccinated persons in the province still remains far below the figure necessary to prevent epidemic outbreaks and although the total annual vaccination operations amount approximately to two millions or so, these are quite insufficient to ensure the immunity of the total population against small-pox. Hence the incidence of this fell disease continues to remain high. This state of affairs is not so much due to insufficiency or inefficiency of the existing arrangement for vaccination in the province, but is chiefly due to the inherent apathy of the public towards the simple and efficient method of protection. Small-pox is a preventable disease and vaccination can prevent it. In the light of this knowledge and in face of the unsatisfactory vaccination state of the people, there is a great necessity for a more vigorous and complete vaccination policy. Primary vaccination has been made compulsory for many years in all municipal towns, but all the provisions of the Act do not appear to be rigidly enforced with the result that a great proportion of the children do not get vaccination until they cross the first year of their lives. Besides a large number of unvaccinated persons are to be found in every municipal town.

The incidence of small-pox can be definitely prevented provided repeated vaccinations are practised, but re-vaccinations are always accepted with reluctance and the people do not seem to realise that immunity conferred by primary vaccination wears out within 5 to 7 years. Thus during epidemics the percentage of protected persons is small and not until the



disease has had its toll that the public realise the importance of re-vaccination. Prejudices born of ancient traditions die hard and appear to be the chief obstacle in the way of pushing vaccination among the masses. Much of the efforts of the public health staff has, therefore, to be directed towards overcoming these obstacles. Vaccination operations are easily done and generally cause no complications. No case of encephalitis following vaccination has so far been recorded in this province.

Almost all the district boards with health organisation scheme, have now assumed the responsibility of the control of vaccination in the rural areas and the cost of running the vaccination schemes is insignificant.

The Bengal Vaccination Act is enforced in the districts of Patna, Gaya, Hazaribagh, Muzaffarpur, Darbhanga, Saran, Purnea, Champaran and Bhagalpur and arrangements are being made to extend it to the district of Shahabad. Introduction of the Act in all the remaining districts of the province and definite arrangement for re-vaccination are necessary.

10. *Inspection of work.*—During the year under report the Assistant Directors of Public Health inspected 44,619 vaccinations (30,811 primary and 13,808 re-vaccinations) as against 50,139 in the previous year.

The Assistant Directors of Public Health performed vaccination inspection tours of 14 districts as compared with 15 in the previous year. Valuable reports were submitted on the work done in each of these districts.

11. The Superintendents of Vaccination of the province inspected 43,309 primary and 13,739 re-vaccinations against 51,130 primary and 9,520 re-vaccinations last year. The Vaccine Depot, Namkum, continued to supply the province with vaccine throughout the year. A large supply of vaccine is held in reserve and ample stock of the necessary stores and supplies for the manufacture is maintained. 3,353,686 doses of vaccine were manufactured during the year as compared with 2,993,183 doses last year. 3,212,580 doses were issued as against 3,298,463 in the previous year and 4,891,045 doses were left in stock at the end of the year. The number of cattle used during the year was 1,118 as compared with 949 in the previous year. The average yield of crude vaccine was 33,033 grammes per animal. The total expenditure of the Vaccine Depot amounted to Rs. 37,185 during the year as compared with the expenditure of Rs. 30,232 of the previous year. The average cost of the vaccine per dose came to 2.12 pies when calculated on the gross expenditure. The sale proceeds of vaccine lymph was Rs. 27,769 as compared with Rs. 35,264-4-3 of the previous year.

12. *Vaccine Depot and Cold Storage.*—There was no serious outbreak of any epidemic disease among the calves. Only a few had a mild attack of foot and mouth disease but the outbreak was promptly checked. Only nine calves died after admission into the Vaccine Depot, the death rate being 0.8 per cent during the year as compared with the same rate of previous year. Besides vaccine lymph, cholera, plague and influenza vaccines were also as usual stocked at the Depot.

13. *Experimental work.*—The following is a summary of the experiments carried out by the Superintendent during the year:—

- (1) Vaccine lymph diluted with glycerine shows a tendency to acid re-action on keeping. This change of re-action which is more rapid in the room temperature than in the cold storage indicates deterioration of the lymph.
- (2) Experiments have been started to find out if redeveloped pocks on calves can be used with any advantage. So far the results obtained have not been conclusive.
- (3) Experiments have been taken up to find out if weak solution (1 per cent), of carbolic acid can be used with advantage to make vaccine lymph free of other germs sooner and fit for use in emergency.



- (4) Experiments have been started to find out whether the paste made from the crude pulp preserved in crude form in the cold chamber retains the potency to the fullest extent.

14. *Cost of the Department.*—The total cost of the Vaccination Department excluding that of the Vaccine Depot during the year, as noted in Statement I was Rs. 59,081 as against Rs. 68,819 in the previous year.

The cost per each successful operation was ten pies as compared with nine pies of last year.

15. *Personnel.*—In conclusion, I desire to bring to the notice of Government the good work done by the Assistant Directors of Public Health in their respective circles.

Dr. B. P. Mozoomdar was in supervising and controlling charge of the Vaccine Depot in addition to his own duties whilst Dr. C. N. Banerji continued as Superintendent of the Depot. Both the officers showed great keenness and interest in all matters connected with the Depot.

S. L. MITRA, LT.-COL., I.M.S.,  
*Director of Public Health, Bihar.*





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APPENDIX I.

1	2	3			4		
No.	Districts.	Population according to the Census of 1931.			Number of Births registered.		
		Male.	Female.	Total.	Male.	Female.	Total.
PATNA DIVISION.							
1	Patna ... ..	956,124	890,350	1,846,474	35,140	33,643	68,783
2	Gaya ... ..	1,193,643	1,194,819	2,388,462	55,790	53,713	109,503
3	Shahabad ... ..	999,099	994,390	1,993,489	43,004	39,183	82,187
	Total ... ..	3,148,866	3,079,559	6,228,425	133,934	126,539	260,473
TIRHUT DIVISION.							
4	Saran ... ..	1,220,049	1,266,419	2,486,468	49,304	46,495	95,799
5	Champaran ... ..	1,080,956	1,064,731	2,145,687	42,015	39,415	81,430
6	Muzaffarpur ... ..	1,443,847	1,497,178	2,941,025	58,359	55,446	113,805
7	Darbhanga ... ..	1,570,959	1,595,135	3,166,094	54,893	52,460	107,353
	Total ... ..	5,315,811	5,423,463	10,739,274	204,571	193,816	398,387
BHAGALPUR DIVISION.							
8	Monghyr ... ..	1,145,797	1,141,357	2,287,154	45,348	42,832	88,180
9	Bhagalpur ... ..	1,130,584	1,104,048	2,234,632	37,120	35,198	72,318
10	Purnea ... ..	1,129,681	1,056,862	2,186,543	37,393	34,106	71,499
11	Santal Parganas ... ..	1,025,921	1,025,551	2,051,472	26,978	25,529	52,507
	Total ... ..	4,431,983	4,327,818	8,759,801	146,839	137,675	284,514
CHOTA NAGPUR DIVISION.							
12	Hazaribagh ... ..	751,956	765,401	1,517,357	23,942	22,938	46,880
13	Ranchi ... ..	777,063	790,086	1,567,149	23,781	23,474	47,255
14	Palamau ... ..	409,778	408,958	818,736	17,413	17,207	34,620
15	Manbhum ... ..	940,009	870,881	1,810,890	25,970	23,944	49,914
16	Singhbhum ... ..	469,421	460,381	929,802	11,166	10,799	21,965
	Total ... ..	3,348,227	3,295,707	6,643,934	102,272	98,362	200,634
	Total for the Province ... ..	16,244,887	16,126,547	32,371,434	587,616	556,392	1,144,008



I.  
istricts of Bihar Province during the year 1936.

5			6	7	8	9			10
Ratio of births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.	Mean ratio of births per 1,000 during previous five years.			No.
Male.	Female.	Total.				Male.	Female.	Total.	
19.0	18.2	37.2	...	...	...	17.1	16.3	33.4	1
23.3	22.5	45.8	...	...	...	22.4	21.5	43.9	2
21.6	19.6	41.2	...	...	...	20.3	18.7	39.0	3
21.5	20.3	41.8	...	...	...	20.1	19.1	39.2	
19.8	18.7	38.5	...	...	...	18.4	17.5	35.9	4
19.6	18.3	37.9	...	...	...	16.6	16.0	32.6	5
19.8	18.8	38.6	...	...	...	17.7	16.8	34.5	6
17.3	16.6	33.9	...	...	...	16.2	15.3	31.5	7
19.0	18.0	37.1	..	...	...	17.2	16.4	33.6	
19.9	18.9	38.8	...	...	...	19.3	18.1	37.4	8
16.6	15.7	32.3	...	...	...	15.8	15.1	30.9	9
17.1	15.6	32.7	...	...	...	15.1	13.9	29.0	10
13.1	12.4	25.5	...	...	...	14.5	14.0	28.5	11
16.8	15.7	32.5	...	...	...	16.3	15.3	31.6	
15.7	15.1	30.8	...	...	...	18.6	18.0	36.6	12
15.2	14.9	30.1	...	...	...	16.5	16.2	32.7	13
21.3	21.0	42.3	...	...	...	21.7	21.0	42.7	14
14.4	13.2	27.6	...	...	...	14.6	14.0	28.6	15
12.0	11.6	23.6	...	...	...	13.2	12.7	25.9	16
15.4	14.8	30.2	...	...	...	16.7	16.1	32.8	
18.1	17.2	35.3	106	13.6	...	17.4	16.6	34.0	

Annual Form No. 1A.—Births registered according to class in each town and rural areas in

1				2			3		
Registering circle.				Christians.			Hindus.		
				Male.	Female.	Total.	Male.	Female.	Total.
PATNA.									
Patna town	...	...	...	1	...	1	1,248	1,158	2,400
Bihar town	...	...	...	...	...	...	271	276	547
Dinapur Nizamat town	...	...	...	...	...	...	156	156	312
Dinapur Cantonment	...	...	...	1	...	1	100	105	205
Barh town	...	...	...	...	...	...	157	144	301
Khagole town	...	...	...	...	...	...	86	65	151
Total of towns	...	...	...	2	...	2	2,012	1,904	3,916
Total of rural	...	...	...	...	...	...	30,393	29,123	59,516
Total of district	...	...	...	2	...	2	32,405	31,027	63,432
GAYA.									
Gaya town	...	...	...	...	...	...	1,158	968	2,126
Tikari town	...	...	...	...	...	...	85	86	171
Daudnagar town	...	...	...	...	...	...	195	178	373
Total of towns	...	...	...	...	...	...	1,438	1,232	2,670
Total of rural	...	...	...	...	...	...	49,241	47,503	96,744
Total of district	...	...	...	...	...	...	50,679	48,735	99,414
SHAHABAD.									
Airah town	...	...	...	...	...	...	210	153	363
Buxar town	...	...	...	...	1	1	165	126	291
Dumraon town	...	...	...	2	...	2	118	91	209
Jagadispur town	...	...	...	...	...	...	80	77	157
Sasaram town	...	...	...	...	...	...	250	202	452
Bhabua town	...	...	...	...	...	...	67	65	132
Total of towns	...	...	...	2	1	3	890	714	1,604
Total of rural	...	...	...	3	...	3	39,508	36,236	75,744
Total of district	...	...	...	5	1	6	40,398	36,950	77,348



DIX I—contd.

the districts of Bihar province during the year 1936—contd.

4			5			6			7		
Muhammadans.			Buddhists.			Other Classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
317	264	581	...	...	...	...	...	...	1,560	1,422	2,982
84	91	175	...	...	...	...	...	...	355	367	722
42	45	87	...	...	...	...	...	...	198	201	399
34	34	68	...	...	...	...	...	...	135	139	274
35	39	74	...	...	...	...	...	...	192	183	375
21	10	31	...	...	...	...	...	...	107	75	182
533	483	1,016	...	...	...	...	...	...	2,547	2,387	4,934
2,200	2,133	4,333	...	...	...	...	...	...	32,593	31,256	63,849
2,733	2,616	5,349	...	...	...	...	...	...	35,140	33,643	68,783
265	218	483	...	...	...	...	...	...	1,423	1,186	2,609
33	28	61	...	...	...	...	...	...	118	114	232
44	44	88	...	...	...	...	...	...	239	222	461
342	290	632	...	...	...	...	...	...	1,780	1,522	3,302
4,769	4,688	9,457	...	...	...	...	...	...	54,010	52,191	106,201
5,111	4,978	10,089	...	...	...	...	...	...	55,790	53,713	109,503
82	73	153	...	...	...	...	...	...	292	226	518
27	43	70	...	...	...	...	...	...	192	170	360
20	8	28	...	...	...	...	...	...	140	99	239
30	19	49	...	...	...	...	...	...	110	96	206
102	88	190	...	...	...	...	...	...	352	290	642
33	26	59	...	...	...	...	...	...	100	91	191
294	257	551	...	...	...	...	...	...	1,186	972	2,158
2,307	1,975	4,282	...	...	...	...	...	...	41,818	38,211	80,029
2,601	2,232	4,833	...	...	...	...	...	...	43,064	39,183	82,187

## Annual Form No. 1A.—Births registered according to class in each town and rural areas

1				2			3		
Registering circle.				Christians.			Hindus.		
				Male.	Female.	Total.	Male.	Female.	Total.
SARAN.									
Chapra town	...	...	...	...	...	...	689	554	1,243
Revelganj town	...	...	...	...	...	...	149	119	268
Siwan town	...	...	...	..	...	...	185	178	363
Total of towns	...	...	...	...	...	...	1,023	851	1,874
Total of rural	...	...	...	...	...	...	38,422	36,919	75,341
Total of district	...	...	...	..	...	...	39,445	37,770	77,215
CHAMPARAN.									
Bettiah town	...	...	...	49	48	97	362	320	682
Motihari town	...	...	...	...	...	...	138	118	256
Total of towns	...	...	...	49	48	97	500	438	938
Total of rural	...	...	...	11	11	22	34,740	32,739	67,479
Total of district	...	...	...	60	59	119	35,240	33,177	68,417
MUZAFFARPUR.									
Muzaffarpur town	...	...	...	...	1	1	431	373	804
Sitamarhi town	...	...	...	...	...	...	148	131	279
Hajipur town	...	...	...	...	..	...	323	285	608
Lalganj town	...	...	...	...	...	...	161	150	311
Total of towns	...	...	...	...	1	1	1,063	939	2,002
Total of rural	...	...	...	10	10	20	49,995	47,554	97,549
Total of district	...	...	...	10	11	21	51,058	48,493	99,551
DARBHANGA.									
Darbhanga town	...	...	...	...	...	...	899	732	1,631
Roserah town	...	...	...	...	...	...	131	116	247
Samastipur town	...	...	...	...	...	...	105	101	206
Madhubani town	...	...	...	...	...	...	186	214	400
Total of towns	...	..	...	...	...	...	1,321	1,163	2,484
Total of rural	...	...	...	...	..	...	46,700	44,804	91,504
Total of district	...	...	...	...	...	...	48,021	45,967	93,988



## DIX I—contd.

in the districts of Bihar province during the year 1936—contd.

4			5			6			7		
Muhammadans.			Buddhists.			Other Classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
194	137	331	...	...	...	...	...	...	883	691	1,574
53	43	96	...	...	...	...	...	...	202	162	364
81	66	147	...	...	...	...	...	...	266	244	410
328	246	574	...	...	...	...	...	...	1,351	1,097	2,448
9,531	8,479	18,010	...	...	...	...	...	...	47,953	45,398	93,351
9,859	8,725	18,584	...	...	...	...	...	...	49,304	46,495	95,799
216	193	409	...	...	...	...	...	...	627	561	1,188
62	56	118	...	...	...	...	...	...	200	174	374
278	249	527	...	...	...	...	...	...	827	735	1,562
6,437	5,930	12,367	...	...	...	...	...	...	41,188	38,680	79,868
6,715	6,179	12,894	...	...	...	...	...	...	42,015	39,415	81,430
152	149	301	...	...	...	...	...	...	583	523	1,106
36	27	63	...	...	...	...	...	...	184	158	342
67	58	125	...	...	...	...	...	...	390	343	733
22	35	57	...	...	...	...	...	...	183	185	368
277	269	546	...	...	...	...	...	...	1,340	1,209	2,549
7,014	6,673	13,687	...	...	...	...	...	...	57,019	54,237	111,256
7,291	6,942	14,233	...	...	...	...	...	...	58,359	55,446	113,805
342	273	615	...	...	...	...	...	...	1,241	1,005	2,246
4	...	4	...	...	...	...	...	...	135	118	251
33	22	55	...	...	...	...	...	...	138	123	261
94	100	194	...	...	...	...	...	...	280	314	594
473	395	868	...	...	...	...	...	...	1,794	1,558	3,352
6,399	6,098	12,497	...	...	...	...	...	...	53,099	50,902	104,001
6,872	6,493	13,365	...	...	...	...	...	...	54,893	52,480	107,353

## Annual Form No. 1A.—Births registered according to class in each town and rural areas

1			2			3		
Registering circle.			Christians.			Hindus.		
—			Male.	Female.	Total.	Male	Female.	Total.
MONGHYR.								
Monghyr town	...	...	...	...	...	672	567	1,239
Jamalpur town	...	...	5	2	7	434	425	869
Total of towns	...	...	5	2	7	1,106	1,002	2,108
Total of rural	...	...	10	7	17	39,948	37,629	77,577
Total of district	...	...	15	9	24	41,054	38,631	79,685
BHAGALPUR.								
Bhagalpur town	...	...	...	...	...	820	722	1,542
Colgong town	...	...	...	...	...	90	65	155
Total of towns	...	...	...	...	...	910	787	1,697
Total of rural	...	...	...	...	...	33,117	31,626	64,743
Total of district	...	...	...	...	...	34,027	32,413	66,440
PURNEA.								
Purnea town	...	...	...	1	1	129	112	241
Kishenganj town	...	...	...	...	...	42	34	76
Katihar town	...	...	...	...	...	65	61	126
Forbesganj town	...	...	...	...	...	64	29	93
Total of towns	...	...	...	1	1	300	236	536
Total of rural	...	...	2	...	2	21,731	19,882	41,613
Total of district	...	...	2	1	3	22,031	20,118	42,149
SANTAL PARGANAS.								
Sahibganj town	...	...	...	...	...	59	56	115
Deoghar town	...	...	...	...	...	45	45	90
Dumka town	...	...	...	1	1	31	30	61
Madhupur town	...	...	...	...	...	36	32	68
Total of towns	...	...	...	1	1	171	163	334
Total of rural	...	...	75	67	142	13,280	12,502	25,782
Total of district	...	...	75	68	143	13,451	12,665	26,116



DIX 1—contd.

in the districts of Bihar province during the year 1936—contd.

4			5			6			7		
Muhammadans.			Buddhists.			Other Classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
144	126	270	...	...	...	...	...	...	816	639	1,509
94	75	169	...	...	...	...	...	...	533	512	1,045
238	201	439	...	...	...	...	...	...	1,349	1,205	2,554
4,041	3,991	8,032	...	...	...	...	...	...	43,999	41,627	84,626
4,279	4,192	8,471	...	...	...	...	...	...	45,348	42,832	88,180
162	127	289	...	...	...	...	...	...	982	849	1,831
28	15	43	...	...	...	...	...	...	118	80	198
190	142	332	...	...	...	...	...	...	1,100	929	2,029
2,903	2,643	5,546	...	...	...	...	...	...	36,020	34,269	70,289
3,093	2,785	5,878	...	...	...	...	...	...	37,120	35,198	72,318
55	45	100	...	...	...	...	...	...	184	158	342
37	25	62	...	...	...	...	...	...	79	59	138
29	19	48	...	...	...	...	...	...	94	80	174
34	23	62	...	...	...	...	...	...	98	57	155
155	117	272	...	...	...	...	...	...	455	354	809
15,070	13,718	28,788	135	150	285	...	2	2	36,938	33,752	70,690
15,225	13,835	29,060	135	150	285	...	2	2	37,393	34,106	71,499
4	2	6	...	...	...	...	...	...	63	58	121
11	...	11	...	...	...	...	...	...	56	45	101
7	3	10	...	...	...	7	11	18	45	45	90
4	5	9	...	...	...	1	...	1	41	37	78
26	10	36	...	...	...	8	11	19	205	185	390
3,366	2,980	6,346	...	...	...	10,052	9,805	19,857	26,773	25,354	52,127
3,392	2,990	6,382	...	...	...	10,060	9,816	19,876	26,978	25,539	52,517

## Annual Form No. 1A.—Births registered according to class in each town and rural areas

1	2			3		
	Christians.			Hindus.		
	Male.	Female.	Total.	Male.	Female.	Total.
Registering circle.						
HAZARIBAGH.						
Hazaribagh town ...	...	...	...	183	155	338
Chatra town ...	...	...	...	52	56	108
Giridih town ...	...	...	...	72	57	129
Total of towns ...	...	...	...	307	268	575
Total of rural ...	6	5	11	20,775	20,015	40,790
Total of district ...	6	5	11	21,082	20,283	41,365
RANCHI.						
Ranchi town ...	40	36	76	128	106	234
Lohardaga town ...	4	1	5	64	50	114
Total of towns ...	44	37	81	192	156	348
Total of rural ...	3,149	3,232	6,381	7,660	7,630	15,290
Total of district ...	3,193	3,269	6,462	7,852	7,786	15,638
PALAMAU.						
Daltonganj town ...	...	...	...	86	59	145
Total of rural ...	216	202	418	15,623	15,563	31,186
Total of district ...	216	202	418	15,709	15,622	31,331
MANBHUM.						
Purulia town ...	13	3	16	245	231	476
Raghunathpur town ...	...	...	...	114	90	204
Jhalda town ...	...	...	...	119	104	223
Dhanbad town ...	1	1	2	169	117	284
Total of towns ...	14	4	18	645	542	1,187
Total of rural ...	68	54	122	22,175	20,609	42,784
Total of district ...	82	58	140	22,820	21,151	43,971
SINGHBHUM.						
Chaibassa town ...	5	3	8	75	72	147
Chakradharpur town ...	3	1	4	85	63	148
Jugsalai town ...	2	2	4	114	120	234
Jamshedpur town ...	2	3	5	153	108	261
Total of towns ...	12	9	21	427	363	790
Total of rural ...	130	96	226	4,879	4,732	9,611
Total of districts Province. ...	142	105	247	5,306	5,095	10,401
Total of towns ...	128	104	232	12,391	10,817	23,208
Total of rural ...	3,680	3,684	7,364	468,187	445,066	913,253
Total of districts ...	3,808	3,788	7,596	480,578	455,883	936,461



DIX I—contd.

in the districts of Bihar province during the year 1936—concl'd.

4			5			6			7		
Muhammadans.			Buddhists.			Other classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
83	62	145	...	...	...	...	...	...	266	217	483
26	19	45	...	...	...	...	...	...	78	75	153
46	32	78	...	...	...	...	...	...	118	89	207
155	113	268	...	...	...	...	...	...	462	381	843
2,315	2,224	4,539	...	...	...	384	313	697	23,480	22,557	46,037
2,470	2,337	4,807	...	...	...	384	313	697	23,942	22,938	46,880
64	67	131	...	...	...	29	8	37	261	217	478
35	17	52	...	...	...	5	4	9	108	72	180
99	84	183	...	...	...	34	12	46	369	289	658
958	1,024	1,982	...	...	...	11,645	11,299	22,944	23,412	23,185	46,597
1,057	1,108	2,165	...	...	...	11,679	11,311	22,990	23,781	23,474	47,255
24	18	42	...	...	...	...	...	...	110	77	187
1,455	1,356	2,811	...	...	...	9	9	18	17,303	17,130	34,433
1,479	1,374	2,853	...	...	...	9	9	18	17,413	17,207	34,620
28	26	54	...	...	...	...	...	...	286	260	546
2	2	4	...	...	...	...	...	...	116	92	208
3	3	6	...	...	...	...	...	...	122	107	229
26	16	42	...	...	...	1	...	1	195	134	329
59	47	106	...	...	...	1	...	1	719	593	1,312
1,342	1,189	2,531	...	...	...	1,666	1,499	3,165	25,251	23,351	48,602
1,401	1,236	2,637	...	...	...	1,667	1,499	3,166	25,970	23,944	49,914
14	10	24	...	...	...	34	46	80	128	131	259
10	11	21	...	...	...	1	...	1	99	75	174
14	14	28	...	...	...	1	2	3	131	138	269
16	10	26	...	...	...	4	2	6	175	123	298
54	45	99	...	...	...	40	50	90	533	467	1,000
66	60	126	...	...	...	5,558	5,444	11,002	10,633	10,332	20,965
120	105	225	...	...	...	5,598	5,494	11,092	11,166	10,799	21,965
3,525	2,966	6,491	...	...	...	83	73	156	16,127	13,960	30,087
70,173	65,161	135,334	135	150	285	29,314	28,371	57,685	571,489	542,432	1,113,921
73,698	68,127	141,825	135	150	285	29,397	28,444	57,841	587,616	556,392	1,144,008

*Annual Form no. IB.—Still births registered according to class in each town and rural*

1	2			3		
Registering circle.	Christians.			Hindus.		
	Male.	Female.	Total.	Male.	Female.	Total.
<b>PATNA.</b>						
Patna town .. ..	..	..	..	25	14	39
Bihar town ..	..	..	..	4	3	7
Dinapur Nizamat town ..	..	..	..	4	1	5
Dinapur Cantonment ..	..	..	..	2	2	4
Barh town .. ..	..	..	..	2	..	2
Khagole town ..	..	..	..	2	2	4
Total of towns ..	..	..	..	39	22	61
Total of rural ..	..	..	..	1,625	1,313	2,938
Total of district ..	..	..	..	1,664	1,335	2,999
<b>GAYA.</b>						
Gaya town .. ..	..	..	..	67	47	114
Tikari town .. ..	..	..	..	7	4	11
Daudnagar town ..	..	..	..	8	3	11
Total of towns ..	..	..	..	82	54	136
Total of rural ..	..	..	..	1,333	1,161	2,494
Total of district ..	..	..	..	1,415	1,215	2,630
<b>SHAHABAD.</b>						
Arrah town .. ..	..	..	..	1	..	1
Buxar town .. ..	..	..	..	1	..	1
Dumraon town ..	..	..	..	..	..	..
Jagadispur town ..	..	..	..	..	..	..
Sasaram town ..	..	..	..	..	..	..
Bhabua town .. ..	..	..	..	..	..	..
Total of towns ..	..	..	..	2	..	2
Total of rural ..	..	..	..	42	24	66
Total of district ..	..	..	..	44	24	68



## DIX I—contd.

areas in the districts of Bihar province during the year 1936—contd.

4			5			6			7		
Muhammadans			Budhists.			Other Classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
7	4	11	..	..	..	..	..	..	32	18	50
1	1	2	..	..	..	..	..	..	5	4	9
..	..	..	..	..	..	..	..	..	4	1	5
..	1	1	..	..	..	..	..	..	2	3	5
..	..	..	..	..	..	..	..	..	2	..	2
..	..	..	..	..	..	..	..	..	2	2	4
8	6	14	..	..	..	..	..	..	47	28	75
38	36	74	..	..	..	..	..	..	1,663	1,349	3,012
46	42	88	..	..	..	..	..	..	1,710	1,377	3,087
16	12	28	..	..	..	..	..	..	83	59	142
..	1	1	..	..	..	..	..	..	7	5	12
3	..	3	..	..	..	..	..	..	11	3	14
19	13	32	..	..	..	..	..	..	101	67	168
90	69	159	..	..	..	..	..	..	1,423	1,230	2,653
109	82	191	..	..	..	..	..	..	1,524	1,297	2,821
..	..	..	..	..	..	..	..	..	1	..	1
..	..	..	..	..	..	..	..	..	1	..	1
..	1	1	..	..	..	..	..	..	..	1	1
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	1	1	..	..	..	..	..	..	2	1	3
9	7	16	..	..	..	..	..	..	51	31	82
9	8	17	..	..	..	..	..	..	53	32	85

Annual Form no. IB.—Still births registered according to class in each town and rural

1	2			3		
Registering circle.	Christians.			Hindus.		
	Male.	Female.	Total.	Male.	Female.	Total.
<b>SARAN.</b>						
Chapra town ..	..	..	..	25	15	40
Revelganj town ..	..	..	..	3	2	5
Siwan town ..	..	..	..	5	2	7
Total of towns ..	..	..	..	33	19	52
Total of rural ..	..	..	..	1,940	1,532	3,472
Total of district ..	..	..	..	1,973	1,551	3,524
<b>CHAMPARAN.</b>						
Bettiah town ..	..	..	..	7	6	13
Motihari town ..	..	..	..	2	3	5
Total of towns ..	..	..	..	9	9	18
Total of rural ..	1	..	1	1,547	1,237	2,784
Total of district ..	1	..	1	1,556	1,246	2,802
<b>MUZAFFARPUR.</b>						
Muzaffarpur town ..	..	..	..	15	19	34
Sitamarhi town ..	..	..	..	3	8	11
Hajipur town ..	..	..	..	3	1	4
Lalganj town ..	..	..	..	2	9	11
Total of towns ..	..	..	..	23	37	60
Total of rural ..	1	..	1	2,734	2,092	4,826
Total of district ..	1	..	1	2,757	2,129	4,886
<b>DARBHANGA.</b>						
Darbhanga town ..	..	..	..	14	21	35
Roserah town ..	..	..	..	1	2	3
Samastipur town ..	..	..	..	2	..	2
Madhubani town ..	..	..	..	1	1	2
Total of towns ..	..	..	..	18	24	42
Total of rural ..	..	..	..	908	730	1,638
Total of district ..	..	..	..	926	754	1,680



## DIX I—contd.

areas in the districts of Bihar province during the year 1936—contd.

4			5			6			7		
Muhammadans.			Budhists.			Other Classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
2	..	2	..	..	..	..	..	..	27	15	42
..	..	..	..	..	..	..	..	..	3	2	5
..	..	..	..	..	..	..	..	..	5	2	7
2	..	2	..	..	..	..	..	..	35	19	54
198	192	390	..	..	..	..	..	..	2,138	1,724	3,862
200	192	392	..	..	..	..	..	..	2,173	1,743	3,916
2	1	3	..	..	..	..	..	..	9	7	16
..	..	..	..	..	..	..	..	..	2	3	5
2	1	3	..	..	..	..	..	..	11	10	21
271	224	495	..	..	..	..	..	..	1,819	1,461	3,280
273	225	498	..	..	..	..	..	..	1,830	1,471	3,301
4	7	11	..	..	..	..	..	..	19	26	45
1	..	1	..	..	..	..	..	..	4	8	12
..	..	..	..	..	..	..	..	..	3	1	4
..	..	..	..	..	..	..	..	..	2	9	11
5	7	12	..	..	..	..	..	..	28	44	72
603	456	1,059	..	..	..	..	..	..	3,338	2,548	5,886
608	463	1,071	..	..	..	..	..	..	3,366	2,592	5,958
..	1	1	..	..	..	..	..	..	14	12	26
..	..	..	..	..	..	..	..	..	1	2	3
..	..	..	..	..	..	..	..	..	2	..	2
..	..	..	..	..	..	..	..	..	1	1	2
..	1	1	..	..	..	..	..	..	18	25	43
58	53	111	..	..	..	..	..	..	966	783	1,749
58	54	112	..	..	..	..	..	..	984	808	1,792

Annual Form no. IB.—Still births registered according to class in each town and rural

1	2			3		
Registering circle.	Christians.			Hindus.		
	Male.	Female.	Total.	Male.	Female.	Total.
<b>MONGHYR.</b>						
Monghyr town ..	..	..	..	9	2	11
Jamalpur town ..	1	..	1	12	8	20
Total of towns ..	1	..	1	21	10	31
Total of rural ..	..	..	..	1,618	1,475	3,093
Total of district ..	1	..	1	1,639	1,485	3,124
<b>BHAGALPUR.</b>						
Bhagalpur town ..	..	..	..	35	30	65
Colgong town ..	..	..	..	1	1	2
Total of towns ..	..	..	..	36	31	67
Total of rural ..	..	..	..	319	304	623
Total of district ..	..	..	..	355	335	690
<b>PURNEA.</b>						
Purnea town ..	..	..	..	4	4	8
Kishenganj town ..	..	..	..	1	..	1
Katihar town ..	..	..	..	2	3	5
Forbesganj town ..	..	..	..	2	..	2
Total of towns ..	..	..	..	9	7	16
Total of rural ..	..	..	..	738	569	1,307
Total of district ..	..	..	..	747	576	1,323
<b>SANTAL PARGANAS.</b>						
Sahibganj town ..	..	..	..	..	..	..
Deoghar town ..	..	..	..	..	..	..
Dumka town ..	..	..	..	..	..	..
Madhupur town ..	..	..	..	..	..	..
Total of towns ..	..	..	..	..	..	..
Total of rural ..	1	..	1	95	45	140
Total of district ..	1	..	1	95	45	140
<b>HAZARIBAGH.</b>						
Hazaribagh town ..	..	..	..	1	..	1
Chatra town ..	..	..	..	..	..	..
Giridih town ..	..	..	..	..	2	2
Total of towns ..	..	..	..	1	2	3
Total of rural ..	..	..	..	362	246	608
Total of district ..	..	..	..	363	248	611



DIX I—contd.

areas in the districts of Bihar province during the year 1936—contd.

4			5			6			7		
Muhammadans.			Budhists.			Other Classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
2	3	5	..	..	..	..	..	..	11	5	16
..	..	..	..	..	..	..	..	..	13	8	21
2	3	5	..	..	..	..	..	..	24	13	37
449	370	819	..	..	..	..	..	..	2,067	1,845	3,912
451	373	824	..	..	..	..	..	..	2,091	1,858	3,949
3	5	8	..	..	..	..	..	..	38	35	73
..	..	..	..	..	..	..	..	..	1	1	2
3	5	8	..	..	..	..	..	..	39	36	75
77	78	155	..	..	..	..	..	..	396	382	778
80	83	163	..	..	..	..	..	..	435	418	853
1	..	1	..	..	..	..	..	..	5	4	9
3	..	3	..	..	..	..	..	..	4	..	4
3	1	4	..	..	..	..	..	..	5	4	9
..	..	..	..	..	..	..	..	..	2	2	4
7	1	8	..	..	..	..	..	..	16	8	24
654	489	1,143	..	..	..	..	..	..	1,392	1,058	2,450
661	490	1,151	..	..	..	..	..	..	1,408	1,066	2,474
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
.. 3	.. 3	.. 6	.. ..	.. ..	.. ..	.. 46	.. 34	.. 80	.. 145	.. 82	.. 227
3	3	6	..	..	..	46	34	80	145	82	227
..	..	..	..	..	..	..	..	..	1	..	1
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	2	2
.. 25	.. 17	.. 42	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. 1 387	.. 2 263	.. 3 650
25	17	42	..	..	..	..	..	..	388	265	653

*Annual Form no. IB.—Still births registered according to class in each town and rural*

1	2			3		
Registering circle.	Christians.			Hindus.		
	Male.	Female.	Total.	Male.	Female.	Total.
<b>RANCHI.</b>						
Ranchi town ..	..	..	..	1	3	4
Lohardaga town ..	2	4	6	2	4	6
Total of towns ..	2	4	6	3	7	10
Total of rural ..	128	106	234	387	308	695
Total of district ..	130	110	240	390	315	705
<b>PALAMAU.</b>						
Daltonganj town ..	..	..	..	..	..	..
Total of rural ..	4	2	6	331	252	583
Total of district ..	4	2	6	331	252	583
<b>MANBHUM.</b>						
Purulia town ..	..	..	..	..	..	..
Raghunathpur town ..	..	..	..	1	1	2
Jhalda town ..	..	..	..	..	1	1
Dhanbad town ..	..	..	..	1	..	1
Total of towns ..	..	..	..	2	2	4
Total of rural ..	..	..	..	295	217	512
Total of district ..	..	..	..	297	219	516
<b>SINGHBHUM.</b>						
Chaibassa town ..	..	..	..	..	..	..
Chakradharpur town ..	1	1	2	2	..	2
Jugsalai town ..	..	..	..	..	..	..
Jamshedpur town ..	..	..	..	3	1	4
Total of towns ..	1	1	2	5	1	6
Total of rural ..	..	..	..	93	63	156
Total of districts of .. Province.	1	1	2	98	64	162
Total of towns ..	4	5	9	283	225	508
Total of rural ..	135	108	243	14,367	11,568	25 935
Total of districts ..	139	113	252	14,650	11,793	26,443



## DIX I—contd.

areas in the districts of Bihar province during the year 1936—concl'd.

4			5			6			7		
Muhammadans.			Budhists.			Other Classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
..	..	..	..	..	..	..	..	..	1	3	4
1	..	1	..	..	..	1	..	1	6	8	14
1	..	1	..	..	..	1	..	1	7	11	18
114	106	220	..	..	..	208	124	332	837	644	1,481
115	106	221	..	..	..	209	124	333	844	655	1,499
..	..	..	..	..	..	..	..	..	..	..	..
15	16	31	..	..	..	..	..	..	350	270	620
15	16	31	..	..	..	..	..	..	350	270	620
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	1	1	2
..	..	..	..	..	..	..	..	..	..	1	1
1	1	2	..	..	..	..	..	..	2	1	3
1	1	2	..	..	..	..	..	..	3	3	6
1	2	3	..	..	..	1	1	2	297	220	517
2	8	5	..	..	..	1	1	2	300	223	523
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	3	1	4
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	3	1	4
..	..	..	..	..	..	..	..	..	6	2	8
2	..	2	..	..	..	89	67	156	184	130	314
2	..	2	..	..	..	89	67	156	190	132	322
50	39	89	..	..	..	1	..	1	338	269	607
2,607	2,118	4,725	..	..	..	344	226	570	17,453	14,020	31,473
2,657	2,157	4,814	..	..	..	345	226	571	17,791	14,289	32,080

## Annual Form No. 11.—Statement of Births and Deaths registered

No.	2							3	4	5			6
	District.							Area in square miles.	Average population per square mile.	Number of deaths registered.			Number of deaths of males to every 100 deaths of females.
										Male.	Female.	Total.	
PATNA DIVISION.													
1	Patna	...	...	...	...	...	...	2,068	893	19,489	18,420	37,909	...
2	Gaya	...	...	...	...	...	...	4,714	506	29,367	26,782	56,149	...
3	Shahabad	...	...	...	...	...	...	4,372	456	22,044	21,440	43,484	...
	Total	...	...	...	...	...	...	11,154	558	70,900	66,612	137,512	...
TIRHUT DIVISION.													
4	Saran	...	...	...	...	...	...	2,683	927	26,123	24,142	50,265	...
5	Champanan	...	...	...	...	...	...	3,531	607	24,218	20,835	45,053	...
6	Muzaffarpur	...	...	...	...	...	...	3,036	968	37,319	33,933	71,252	...
7	Darbhanga	...	...	...	...	...	...	3,348	945	35,524	31,955	67,479	...
	Total	...	...	...	...	...	...	12,598	852	123,184	110,865	234,049	...
BHAGALPUR DIVISION.													
8	Monghyr	...	...	...	...	...	...	3,927	582	26,990	24,855	51,845	...
9	Bhagalpur	...	...	...	...	...	...	4,226	528	28,497	25,771	54,268	...
10	Purnea	...	...	...	...	...	...	4,972	439	29,173	25,760	54,933	...
11	Santal Parganas	...	...	...	...	...	...	5,458	375	20,387	16,999	37,296	...
	Total	...	...	...	...	...	...	18,583	471	105,047	93,295	198,342	...
CHOTA NAGPUR DIVISION.													
12	Hazaribagh	...	...	...	...	...	...	7,021	216	15,885	13,974	29,859	...
13	Ranchi	...	...	...	...	...	...	7,102	220	17,280	15,166	32,446	...
14	Palamau	...	...	...	...	...	...	4,916	166	11,437	10,211	21,648	...
15	Manbhum	...	...	...	...	...	...	4,095	442	17,996	14,656	32,652	...
16	Singhbhum	...	...	...	...	...	...	3,879	239	8,265	7,031	15,296	...
	Total	...	...	...	...	...	...	27,013	235	70,843	61,038	131,881	...
	Total for the Province	...	...	...	...	...	...	69,348	465	369,974	331,840	701,814	111



DIX I—contd.  
in the districts of Bihar Province, during the year 1936.

7											8			9
Death-rate per 1,000 of population from—											Mean ratio of deaths per 1,000 during previous five years.			No.
Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	All causes.			Male.	Female.	Total.	
								Male.	Female.	Total.				
0·07	0·5	...	12·3	0·3	0·5	0·4	6·2	20·3	20·7	20·5	23·1	22·8	22·5	1
0·1	0·8	...	17·0	0·06	0·07	0·3	5·1	24·6	22·4	23·5	30·1	28·1	29·1	2
0·3	1·6	...	15·0	0·02	0·02	0·2	4·6	22·0	21·5	21·8	24·8	24·0	24·4	3
0·2	1·0	...	15·0	0·1	0·2	0·3	5·3	22·5	21·6	22·1	26·0	25·3	25·6	
0·04	0·5	0·3	11·5	0·1	0·3	0·4	6·9	21·4	18·9	20·2	24·2	20·8	22·5	4
0·0004	0·1	0·07	17·1	0·02	0·006	0·2	3·4	22·4	19·5	20·9	23·6	20·7	22·7	5
0·01	0·1	0·07	21·0	0·04	0·02	0·3	2·5	25·8	22·6	24·2	25·7	23·2	24·5	6
0·01	0·2	0·001	18·3	0·05	0·03	0·4	2·1	22·6	20·0	21·3	23·7	20·8	22·2	7
0·02	0·2	0·1	17·2	0·05	0·09	0·4	3·6	23·2	20·4	21·8	24·3	21·4	22·6	
0·01	1·0	...	16·9	0·07	0·05	0·3	4·2	23·5	21·8	22·6	25·8	24·0	24·9	8
0·2	0·6	...	20·6	0·03	0·03	0·2	2·4	25·2	23·3	24·3	24·1	21·7	22·9	9
0·2	2·0	..	21·4	0·04	0·01	0·3	1·2	25·8	24·4	25·1	23·9	22·1	23·0	10
0·4	1·2	...	15·1	0·05	0·2	0·2	1·0	19·8	16·5	18·2	20·5	18·0	19·2	11
0·2	1·2	...	18·5	0·05	0·06	0·2	2·3	23·7	21·5	22·6	23·7	21·5	22·6	
0·4	0·4	...	16·3	0·02	0·03	0·2	2·2	21·1	18·2	19·6	22·9	20·5	21·7	12
0·3	0·05	...	17·4	0·6	0·03	0·2	2·7	22·2	19·2	21·2	24·1	21·0	22·5	13
0·2	0·8	...	21·2	0·04	0·01	0·3	3·7	27·9	25·0	26·0	29·0	26·4	27·7	14
0·9	0·5	...	14·6	0·08	0·1	0·2	1·5	19·1	16·8	18·0	19·0	17·3	18·2	15
0·1	0·9	...	13·4	0·03	0·01	0·2	1·6	17·6	15·2	16·4	16·6	14·0	15·2	16
0·4	0·5	...	16·2	0·2	0·05	0·2	2·2	21·1	18·5	19·8	21·9	19·6	20·8	
0·2	0·7	0·04	16·9	0·1	0·1	0·3	3·3	22·8	20·6	21·7	24·0	21·8	22·9	

## Annual Form No. III.--Deaths registered in the districts of Bihar

1	2		3					
No.	District.		Population according to census, 1931.	January.	February.	March.	April.	May.
PATNA DIVISION.								
1	Patna District	Urban ...	258,284	341	274	237	275	239
		Rural ...	1,588,190	1,919	1,870	2,511	3,003	3,835
		Total ...	1,846,474	2,260	2,144	2,748	3,278	4,074
2	Gaya District ..	Urban ...	105,185	208	168	213	226	251
		Rural ...	2,283,277	3,580	3,010	3,243	3,860	5,132
		Total ...	2,388,462	3,788	3,178	3,456	4,086	5,383
3	Shahabad District	Urban ...	117,630	50	39	46	46	77
		Rural ...	1,875,859	2,997	2,697	2,823	3,071	4,779
		Total ...	1,993,489	3,047	2,736	2,869	3,117	4,856
TIRHUT DIVISION.								
4	Saran District...	Urban ...	70,475	87	92	86	105	129
		Rural ...	2,415,993	3,510	3,305	3,905	4,042	4,627
		Total ...	2,486,468	3,597	3,397	3,991	4,147	4,756
5	Champaran District	Urban ...	45,486	103	63	100	90	66
		Rural ...	2,100,201	3,328	2,449	2,399	4,065	4,383
		Total ...	2,145,687	3,431	2,512	2,499	4,155	4,449
6	Muzaffarpur District	Urban ...	82,241	82	73	117	158	155
		Rural ...	2,858,784	4,757	4,053	4,857	5,067	6,971
		Total ...	2,941,025	4,839	4,126	4,974	5,225	7,126
7	Darbhanga District	Urban ...	98,225	159	131	163	171	165
		Rural ...	3,067,869	4,245	3,802	4,655	5,550	6,515
		Total ...	3,166,094	4,404	3,933	4,818	5,721	6,680
BHAGALPUR DIVISION.								
8	Monghyr District	Urban ...	83,209	72	85	117	91	126
		Rural ...	2,203,945	3,330	3,448	3,555	4,191	5,307
		Total ...	2,287,154	3,402	3,533	3,672	4,282	5,433
9	Bhagalpur District	Urban ...	89,080	124	88	146	194	155
		Rural ...	2,145,552	3,899	3,628	4,313	3,903	4,352
		Total ...	2,234,632	4,023	3,716	4,459	4,097	4,507
10	Purnea District	Urban ...	46,223	30	38	43	63	47
		Rural ...	2,140,320	3,920	3,872	5,065	5,570	6,419
		Total ...	2,186,543	3,950	3,910	5,108	5,633	6,466
11	Santal Parganas District...	Urban ..	48,536	13	12	11	30	27
		Rural ...	2,002,936	2,831	2,711	2,841	3,005	3,400
		Total ...	2,051,472	2,844	2,723	2,852	3,035	3,427



DIX I—contd.

Province, during each month of the year 1936.

4							5	
June.	July.	August.	September.	October.	November.	December.	Total deaths registered during the year.	No.
327	368	361	272	261	222	230	3,407	1
2,849	3,507	3,619	2,680	3,404	2,334	2,971	34,502	
3,176	3,875	3,980	2,952	3,665	2,556	3,201	37,909	
253	312	370	297	309	265	262	3,134	2
4,429	4,367	6,614	5,816	4,953	4,106	3,905	53,015	
4,682	4,679	6,984	6,113	5,262	4,371	4,167	56,149	
68	86	73	69	63	45	55	717	3
4,270	3,490	4,700	4,303	3,617	3,102	2,918	42,767	
4,338	3,576	4,773	4,372	3,680	3,147	2,973	43,484	
130	155	150	100	93	80	119	1,326	4
4,534	4,378	4,839	4,753	3,989	3,292	3,735	48,939	
4,664	4,533	4,989	4,853	4,082	3,372	3,884	50,265	
31	69	37	35	65	71	84	814	5
4,051	3,088	4,164	3,833	3,477	3,617	5,385	44,239	
4,082	3,157	4,201	3,868	3,542	3,688	5,469	45,053	
124	139	136	111	106	96	107	1,404	6
6,070	4,691	5,926	5,491	6,890	6,777	8,298	69,848	
6,194	4,830	6,062	5,602	6,996	6,873	8,405	71,252	
122	126	150	113	134	161	175	1,770	7
5,566	4,122	5,444	5,297	6,169	6,314	8,030	65,709	
5,688	4,248	5,594	5,410	6,303	6,475	8,205	67,479	
93	122	108	82	67	91	90	1,144	8
4,422	3,687	4,757	4,457	4,546	4,282	4,719	50,701	
4,515	3,809	4,865	4,539	4,613	4,373	4,809	51,845	
141	123	114	104	112	100	122	1,523	9
3,497	3,355	4,446	4,483	4,879	5,967	6,023	52,745	
3,638	3,478	4,560	4,587	4,991	6,067	6,145	54,268	
30	36	39	30	48	51	46	501	10
4,561	3,445	3,968	3,177	3,739	4,543	6,153	54,432	
4,591	3,481	4,007	3,207	3,787	4,594	6,199	54,933	
29	19	9	17	25	22	13	227	11
3,050	3,269	3,659	3,485	2,982	2,714	3,122	37,069	
3,079	3,288	3,668	3,502	3,007	2,733	3,135	37,296	

## Annual Form No. III.—Deaths registered in the districts of Bihar

1	2		3					
No.	District.		Population according to census, 1931.	January.	February.	March.	April	May.
	CHOTA NAGPUR DIVISION.							
12	Hazaribagh District	{ Urban ...	50,857	17	18	28	36	52
		{ Rural ...	1,466,500	3,575	2,532	2,600	2,759	2,769
		{ Total ...	1,517,357	3,592	2,550	2,628	2,795	2,821
13	Ranchi District	{ Urban ...	58,094	141	7	9	7	14
		{ Rural ...	1,509,055	2,099	2,258	2,479	2,622	2,565
		{ Total ...	1,567,149	2,240	2,265	2,488	2,629	2,579
14	Palamau District	{ Urban ...	12,040	7	1	3	2	2
		{ Rural ...	806,696	2,031	1,670	1,706	1,580	1,781
		{ Total ...	818,736	2,038	1,671	1,709	1,582	1,783
15	Manbhum District	{ Urban ...	56,393	60	54	41	54	65
		{ Rural ...	1,754,497	2,582	2,705	2,619	3,032	3,253
		{ Total ...	1,810,890	2,642	2,759	2,660	3,086	3,318
16	Singhbhum District	{ Urban ...	30,697	48	66	82	117	83
		{ Rural ...	999,105	1,174	1,169	1,411	1,293	1,194
		{ Total ...	929,802	1,222	1,235	1,493	1,410	1,277
	Total for the province	{ Urban ...	(a)1,336,393	1,542	1,269	1,442	1,665	1,653
		{ Rural ...	31,035,941	49,477	45,179	50,982	56,613	67,282
		{ Total ...	32,371,434	51,019	46,388	52,424	58,278	68,935
	Ratio per 1,000 of population.	{ Urban ...	...	1.1	0.9	1.1	1.2	1.2
		{ Rural ...	...	1.6	1.4	1.6	1.8	2.2
		{ Total ...	...	1.6	1.4	1.6	1.8	2.1

(a) Including cantonment population.



DIX I—contd.

Province, during each month of the year 1936—concl'd.

3							4	5
June.	July.	August.	September.	October.	November.	December.	Total deaths registered during the year.	No
27	30	36	23	31	28	38	364	12
1,993	1,801	2,368	2,416	2,143	2,276	2,263	29,495	
2,020	1,831	2,404	2,439	2,174	2,304	2,301	29,859	
16	21	56	60	77	55	48	511	13
2,448	2,652	3,959	3,385	2,623	2,202	2,643	31,935	
2,464	2,673	4,015	3,445	2,700	2,257	2,691	32,446	
7	11	9	13	4	4	7	70	14
1,603	1,599	1,904	1,990	1,972	1,951	1,791	21,578	
1,610	1,610	1,913	2,003	1,976	1,955	1,798	21,648	
38	81	53	65	36	46	60	653	15
2,646	2,395	3,185	2,890	2,076	1,887	3,009	31,979	
2,684	2,476	3,238	2,955	2,112	1,933	3,069	32,632	
59	70	80	41	54	56	54	810	16
1,122	1,111	1,279	1,083	925	1,074	1,651	14,486	
1,181	1,181	1,359	1,124	979	1,130	1,705	15,296	
1,495	1,768	1,781	1,432	1,485	1,393	1,510	18,375	17
57,111	50,957	64,831	59,539	58,384	56,438	66,646	683,439	
58,606	52,725	66,612	60,971	59,869	57,831	68,156	701,814	
1.1	1.3	1.3	1.1	1.1	1.0	1.1	13.7	18
1.8	1.6	2.1	1.9	1.9	1.8	2.1	22.0	
1.8	1.6	2.0	1.9	1.8	1.8	2.1	21.7	

Annual Form No. IV.—Deaths registered according to age in th

1	2		Deaths und						
No.	District.		Not exceeding one month.					Total of columns 3 and 6.	
			Male.			Female.			
			Under one week.	Over one week.	Total.	Under one week.	Over one week.		Total.
			1	2	3	4	5		6
PATNA DIVISION.									
1	Patna district	{ Urban ...	101	69	170	76	47	123	293
		{ Rural ...	1,501	974	2,475	1,215	723	1,938	4,413
		{ Total ...	1,601	1,043	2,645	1,291	770	2,061	4,706
2	Gaya district ...	{ Urban ...	226	71	297	110	48	158	455
		{ Rural ...	3,186	1,129	4,315	2,544	857	3,401	7,716
		{ Total ...	3,412	1,200	4,612	2,654	905	3,559	8,171
3	Shahabad district	{ Urban ...	50	13	63	27	6	33	96
		{ Rural ...	4,131	748	4,879	3,340	569	3,909	8,738
		{ Total ...	4,181	761	4,942	3,367	575	3,942	8,884
TIRHUT DIVISION.									
4	Saran district ...	{ Urban ...	52	31	83	23	32	55	138
		{ Rural ...	1,975	1,184	3,159	1,407	849	2,256	5,415
		{ Total ...	2,027	1,215	3,242	1,430	881	2,311	5,553
5	Champaran district	{ Urban ..	28	11	39	20	8	28	67
		{ Rural ...	2,684	698	3,382	2,156	546	2,702	6,084
		{ Total ...	2,712	709	3,421	2,176	554	2,730	6,151
6	Muzaffarpur district	{ Urban ...	72	42	114	54	23	77	191
		{ Rural ...	2,072	1,167	3,239	1,860	766	2,626	5,865
		{ Total ...	2,144	1,209	3,353	1,914	789	2,703	6,056
7	Darbhanga district	{ Urban ...	76	25	101	56	26	82	183
		{ Rural ...	2,188	601	2,789	1,757	459	2,216	5,005
		{ Total ...	2,264	626	2,890	1,813	485	2,298	5,188
BHAGALPUR DIVISION.									
8	Monghyr district	{ Urban ...	40	26	66	36	13	49	111
		{ Rural ...	1,490	808	2,298	1,326	645	1,971	4,269
		{ Total ..	1,530	834	2,364	1,362	658	2,020	4,384
9	Bhagalpur district	{ Urban ...	31	44	75	34	32	66	147
		{ Rural ...	1,205	771	1,976	1,000	628	1,628	3,604
		{ Total ...	1,236	815	2,051	1,034	660	1,694	3,741
10	Purnea district...	{ Urban ...	19	10	29	9	9	18	47
		{ Rural ...	1,465	640	2,105	1,227	472	1,699	3,804
		{ Total ...	1,484	650	2,134	1,236	481	1,717	3,855
11	Santal Parganas district	{ Urban ...	11	1	12	8	2	10	21
		{ Rural ...	719	273	992	532	256	788	1,780
		{ Total ...	730	274	1,004	540	258	798	1,802



X I—contd.

istricts of Bihar Province, during the year 1936—contd.

3									
year.									
Over one month and not exceeding six months.			Over six months and not exceeding twelve months.			Total male columns 3, 8 and 11.	Total female columns 6, 9 and 12.	Total.	No.
Male.	Female.	Total.	Male.	Female.	Total.				
8	9	10	11	12	13	14	15	16	
130	100	240	105	107	212	415	330	745	1
1,992	1,677	3,669	1,347	1,149	2,496	5,814	4,764	10,578	
2,132	1,777	3,909	1,452	1,256	2,708	6,229	5,094	11,323	
140	91	231	68	67	135	505	316	821	2
2,397	2,041	4,438	1,602	1,432	3,034	8,314	6,874	15,188	
2,537	2,132	4,669	1,670	1,499	3,169	8,819	7,190	16,009	
20	17	37	17	28	45	100	78	178	3
1,494	1,250	2,744	1,140	972	2,112	7,513	6,131	13,644	
1,514	1,267	2,781	1,157	1,000	2,157	7,613	6,209	13,822	
47	42	89	42	37	79	172	134	306	4
1,559	1,078	2,637	1,156	836	1,992	5,874	4,170	10,044	
1,606	1,120	2,726	1,198	873	2,071	6,046	4,304	10,350	
24	15	39	24	18	42	87	61	148	5
1,443	1,090	2,533	738	535	1,273	5,563	4,327	9,890	
1,467	1,105	2,572	762	553	1,315	5,650	4,388	10,038	
50	37	87	62	38	100	226	152	378	6
2,043	1,747	3,790	1,171	1,007	2,178	6,453	5,380	11,833	
2,093	1,784	3,877	1,233	1,045	2,278	6,679	5,532	12,211	
75	63	138	32	34	66	208	179	387	7
1,563	1,405	2,968	932	796	1,723	5,284	4,417	9,701	
1,638	1,468	3,106	934	830	1,794	5,492	4,596	10,088	
49	48	97	46	39	85	161	136	297	8
1,882	1,581	3,463	1,391	1,138	2,529	5,571	4,690	10,261	
1,931	1,629	3,560	1,437	1,177	2,614	5,732	4,826	10,558	
46	43	89	42	43	85	163	152	315	9
1,209	1,022	2,231	921	769	1,690	4,106	3,419	7,525	
1,255	1,065	2,320	963	812	1,775	4,269	3,571	7,840	
16	20	36	12	14	26	57	52	109	10
1,942	1,665	3,607	763	676	1,439	4,810	4,040	8,850	
1,958	1,685	3,643	775	690	1,465	4,867	4,092	8,959	
7	9	16	2	9	11	21	28	49	11
801	616	1,417	453	372	825	2,246	1,776	4,022	
808	625	1,433	455	381	836	2,267	1,804	4,071	

Annual Form No. IV.—Deaths registered according to age in t

1	2		Deaths un						
No.	District.	Not exceeding one month.							
		Male.			Female.			Total of columns 3 and 6.	
		Under one week.	Over one week.	Total.	Under one week.	Over one week.	Total.		
		1	2	3	4	5	6		7
CHOTA NAGPUR DIVISION.									
12	Hazaribagh district	{ Urban ...	13	3	16	8	3	11	2
		{ Rural ...	711	391	1,102	580	340	920	2,02
		{ Total ...	724	394	1,118	588	343	931	2,04
13	Ranchi district	{ Urban ...	13	4	17	14	3	17	2
		{ Rural ...	866	434	1,300	694	404	1,098	2,39
		{ Total ...	879	438	1,317	708	407	1,115	2,43
14	Palamau district	{ Urban ...	7	1	8	5	2	7	1
		{ Rural ...	972	450	1,422	802	358	1,160	2,58
		{ Total ...	979	451	1,430	807	360	1,167	2,59
15	Manbhum district	{ Urban ...	22	8	30	9	7	16	4
		{ Rural ...	709	388	1,097	458	264	722	1,81
		{ Total ...	731	396	1,127	467	271	738	1,86
16	Singhbhum district	{ Urban ...	11	7	18	20	8	28	4
		{ Rural ...	315	142	457	233	96	329	78
		{ Total ...	326	149	475	253	104	357	83
	Total for the Province	{ Urban ...	772	366	1,138	509	269	778	1,91
		{ Rural ...	26,189	10,798	36,987	21,131	8,232	29,363	66,35
		{ Total ...	26,961	11,164	38,125	21,640	8,501	30,141	68,26
Total population for the province		...	...	...	...	...	...	...	
Ratio per 1,000 of population		...	...	...	...	...	...	...	



IX 1—contd.

Districts of Bihar Province, during the year 1936—contd.

3									
e year.									
Over one month and not exceeding six months.			Over six months and not exceeding twelve months.			Total male columns 3, 8 and 11.	Total female columns 6, 9 and 12.	Total.	No.
Male.	Female.	Total.	Male.	Female.	Total.				
8	9	10	11	12	13	14	15	16	
14	11	25	16	10	26	46	32	78	} 12
945	808	1,753	442	378	820	2,489	2,106	4,595	
959	819	1,778	458	388	846	2,535	2,138	4,673	
14	9	23	3	7	10	34	33	67	} 13
898	762	1,660	443	391	834	2,641	2,251	4,892	
912	771	1,683	446	398	844	2,675	2,254	4,959	
2	3	5	3	2	5	13	12	25	} 14
675	651	1,326	388	375	763	2,485	2,186	4,671	
677	654	1,331	391	377	768	2,488	2,198	4,696	
25	23	48	7	9	16	62	48	110	} 15
669	457	1,126	339	271	610	2,105	1,450	3,555	
694	480	1,174	346	280	626	2,167	1,498	3,665	
22	24	46	24	24	48	64	76	140	} 16
275	235	510	141	131	272	873	695	1,568	
297	259	556	165	155	320	937	771	1,708	
691	555	1,246	505	486	991	2,334	1,819	4,153	
21,787	18,085	39,872	13,367	11,228	24,595	72,141	58,676	130,817	
22,478	18,640	41,118	13,872	11,714	25,586	74,475	60,495	134,970	
...	...	...	...	...	...	389,476	396,266	785,742	
...	...	...	...	...	...	191.2	152.6	171.8	

## Annual Form No. IV.—Deaths registered according to age in the

1	2		3		4		5		6	
No.	District.		1 year and under 5 years.		5 years and under 10 years.		10 years and under 15 years.		15 years and under 20 years.	
			Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
				17	18	19	20	21	22	23
PATNA DIVISION.										
1	Patna district	Urban ...	245	214	97	86	82	107	106	122
		Rural ...	3,578	3,372	663	672	339	364	339	401
		Total ..	3,823	3,586	760	758	421	471	445	533
2	Gaya district	Urban ...	241	225	68	74	53	46	56	101
		Rural ...	6,084	6,088	1,468	1,296	728	606	665	691
		Total ...	6,325	6,313	1,536	1,370	781	652	721	801
3	Shahabad distrit	Urban ...	47	41	13	17	7	10	16	21
		Rural ...	4,403	4,277	956	868	480	383	512	511
		Total ...	4,450	4,318	969	885	487	393	528	542
TIRHUT DIVISION.										
4	Saran district	Urban ...	71	68	20	15	19	25	25	21
		Rural ...	4,802	3,968	1,218	1,048	827	674	726	781
		Total ...	4,873	4,036	1,238	1,063	846	699	751	801
5	Champaran district	Urban ...	58	45	30	37	22	15	26	21
		Rural ...	4,144	3,388	1,255	999	663	412	677	461
		Total ...	4,202	3,433	1,285	1,036	685	427	703	481
6	Muzaffarpur district	Urban ...	121	106	21	47	23	25	24	21
		Rural ...	7,667	7,115	2,532	2,031	1,328	983	1,177	821
		Total ...	7,788	7,221	2,553	2,078	1,351	1,008	1,201	841
7	Darbhanga district	Urban ...	154	143	57	42	35	24	38	21
		Rural ...	6,683	6,489	2,779	2,103	1,544	1,024	1,253	991
		Total ...	6,837	6,632	2,836	2,145	1,579	1,048	1,293	1,021
BHAGALPUR DIVISION.										
8	Monghyr district	Urban ...	125	120	32	33	24	25	32	11
		Rural ...	7,124	6,931	1,434	1,157	764	587	585	501
		Total ...	7,249	7,051	1,466	1,190	788	612	617	521
9	Bhagalpur district	Urban ...	172	139	53	43	36	27	27	31
		Rural ...	5,634	5,276	2,053	1,634	1,178	852	916	871
		Total ...	5,806	5,415	2,106	1,677	1,214	879	943	901
10	Purnea district	Urban ...	31	29	12	9	11	9	13	11
		Rural ...	5,679	5,219	2,191	1,771	1,344	975	1,099	1,071
		Total ..	5,710	5,248	2,203	1,780	1,355	984	1,112	1,081
11	Santal Perganas district ...	Urban ...	22	18	15	10	4	5	1	1
		Rural ...	3,863	3,216	1,662	1,392	1,083	794	1,208	1,021
		Total ...	3,885	3,234	1,677	1,402	1,087	799	1,209	1,021



X I—contd.

Districts of Bihar Province, during the year 1936—contd.

7		8		9		10		11		12
20 years and under 30 years.		30 years and under 40 years.		40 years and under 50 years.		50 years and under 60 years.		60 years and upwards.		N
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
25	26	27	28	29	30	31	32	33	34	
168	209	137	145	119	97	111	86	209	259	1
922	1,164	944	947	1,020	849	1,275	1,096	2,846	3,129	
1,090	1,373	1,081	1,092	1,139	946	1,386	1,182	3,115	3,388	
147	170	143	93	108	55	152	116	244	214	2
1,827	2,062	2,734	1,588	1,669	1,252	1,883	1,524	3,276	3,380	
1,974	2,232	1,877	1,681	1,777	1,307	2,035	1,640	3,522	3,594	
29	38	20	23	31	17	34	21	83	69	3
1,511	1,981	1,440	1,507	1,243	1,111	1,189	1,150	2,417	3,176	
1,540	2,019	1,460	1,530	1,274	1,128	1,223	1,171	2,500	3,245	
54	72	54	58	47	38	52	35	190	150	4
1,944	2,131	1,980	1,929	1,759	1,596	1,815	1,969	4,474	5,253	
1,998	2,203	2,034	1,987	1,806	1,634	1,867	2,004	4,664	5,403	
50	55	57	32	50	19	40	20	44	42	5
2,092	2,178	2,161	1,955	2,169	1,798	2,095	2,033	2,935	2,932	
2,142	2,233	2,218	1,987	2,219	1,817	2,135	2,053	2,979	2,974	
62	61	69	55	64	34	48	46	93	100	6
3,200	2,747	3,233	2,770	2,955	2,508	3,280	3,158	4,743	5,766	
3,262	2,908	3,302	2,825	3,019	2,542	3,328	3,204	4,836	5,866	
83	86	106	74	107	59	69	50	124	109	7
3,287	2,877	3,353	2,810	3,001	2,573	3,148	3,174	4,209	4,702	
3,370	2,963	3,459	2,884	3,108	2,632	3,217	3,224	4,333	4,811	
38	39	26	37	25	18	35	34	93	92	8
1,643	1,590	1,810	1,555	1,879	1,329	2,123	2,068	3,466	3,889	
1,681	1,629	1,836	1,592	1,904	1,347	2,158	2,102	3,559	3,981	
60	66	66	53	83	39	48	43	112	109	9
2,485	2,309	2,724	2,276	2,459	2,067	2,436	2,407	3,686	3,957	
2,545	2,375	2,790	2,329	2,542	2,106	2,484	2,450	3,798	4,060	
40	33	24	23	31	23	23	20	33	17	10
2,940	3,451	3,133	2,733	2,792	2,005	2,084	1,794	2,826	2,471	
2,980	3,481	3,157	2,756	2,823	2,028	2,107	1,814	2,859	2,488	
11	10	12	8	12	2	7	4	18	16	11
2,080	1,992	2,167	1,733	1,960	1,421	1,748	1,435	2,247	2,020	
2,091	2,002	2,179	1,741	1,972	1,423	1,755	1,439	2,265	2,036	

## Annual Form No. IV.—Deaths registered according to age in

1	2	3		4		5		6	
No.	District.	1 year and under 5 years.		5 years and under 10 years.		10 years and under 15 years.		15 years and under 20 years.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
		17	18	19	20	21	22	23	24
CHOTA NAGPUR DIVISION.									
12	Hazaribagh district	{ Urban ...	37	28	8	10	10	5	8
		{ Rural ...	3,356	3,148	1,319	1,097	745	590	634
		{ Total ...	3,393	3,176	1,327	1,107	755	595	642
13	Banchi district	{ Urban ...	44	28	15	12	13	11	15
		{ Rural ...	3,810	3,435	1,155	806	676	570	652
		{ Total ...	3,854	3,463	1,170	878	689	581	667
14	Palaman district	{ Urban ...	8	4	1	1	2	2	3
		{ Rural ...	2,923	2,726	821	677	438	313	372
		{ Total ...	2,931	2,730	822	678	440	315	375
15	Manbhum district	{ Urban ...	58	37	14	14	10	10	19
		{ Rural ...	2,531	2,324	1,189	1,019	868	647	1,161
		{ Total ...	2,589	2,361	1,203	1,033	878	657	1,180
16	Singhbhum district	{ Urban ...	77	74	22	13	18	12	10
		{ Rural ...	1,447	1,343	697	591	388	299	420
		{ Total ...	1,526	1,417	719	604	406	281	430
	Total for the Province	{ Urban ...	1,511	1,319	478	463	369	358	419
		{ Rural ..	73,728	68,315	23,392	19,221	13,893	10,043	12,378
		{ Total ...	75,239	69,634	23,870	19,684	13,762	10,401	12,817
Total population for the province		...	1,996,260	2,110,112	2,330,522	2,129,096	2,005,728	1,767,032	1,322,530
Ratio per 1,000 of population		...	37.7	33.0	10.2	9.2	6.8	5.9	9.7



X I—contd.

Districts of Bihar Province during the year 1936—concl'd.

7		8		9		10		11		12
20 years and under 30 years.		30 years and under 40 years.		40 years and under 50 years.		50 years and under 60 years.		60 years and upwards.		No.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
25	26	27	28	29	30	31	32	33	34	
12	31	9	11	20	8	12	12	36	19	12
1,498	1,514	1,491	1,199	1,325	932	1,480	1,364	1,350	1,292	
1,510	1,545	1,500	1,210	1,345	940	1,492	1,376	1,386	1,311	13
25	36	16	37	21	16	39	24	38	33	
1,517	1,482	1,492	1,179	1,497	1,038	1,690	1,642	1,890	1,854	14
1,542	1,518	1,508	1,216	1,518	1,054	1,729	1,666	1,928	1,887	
2	3	1	4	...	2	6	1	2	2	15
1,001	955	860	780	895	672	817	785	787	733	
1,003	958	861	784	895	674	823	786	789	735	16
39	29	54	33	49	22	28	21	45	37	
2,116	1,868	2,100	1,507	1,816	1,115	1,692	1,312	2,020	2,087	17
2,155	1,897	2,154	1,540	1,865	1,137	1,720	1,333	2,065	2,124	
79	54	84	28	42	19	24	17	46	25	18
815	715	876	589	888	535	696	657	699	951	
894	769	960	617	930	554	720	674	745	976	19
899	992	878	714	809	468	728	550	1,470	1,293	
30,878	31,016	31,498	27,057	29,327	22,801	29,451	27,568	43,873	47,592	20
31,777	32,008	32,376	27,771	30,136	23,269	30,179	28,118	45,344	48,885	
763,352	2,894,276	2,341,958	2,314,501	1,595,753	1,513,295	1,513,295	913,225	594,542	727,186	
11.5	11.0	13.8	12.0	18.9	15.4	33.3	30.8	76.3	67.2	

Annual form No. IVA.—Deaths under one year registered according to class in each town and

1				2			3		
Registering circle.				Christians.			Hindus.		
				Male.	Female.	Total.	Male.	Female.	Total.
PATNA.									
Patna town	...	...	...	...	...	...	190	180	370
Bihar town	...	...	...	...	...	...	38	31	69
Dinapur Nizamat...	...	...	...	...	...	...	33	20	53
Dinapur Cantonment	...	...	...	...	...	...	21	15	37
Barh town	...	...	...	...	...	...	25	10	35
Khagole town	...	...	...	...	...	...	17	10	27
Total of towns	...	...	...	...	...	...	324	267	591
Total of rural	...	...	...	...	...	...	5,561	4,564	10,125
Total of district	...	...	...	...	...	...	5,885	4,831	10,716
GAYA.									
Gaya town	...	...	...	...	...	...	369	218	587
Tikari town	...	...	...	...	...	...	17	10	27
Daudnagar town	...	...	...	...	...	...	31	23	54
Total of towns	...	...	...	...	...	...	417	251	668
Total of rural	...	...	...	...	...	...	7,864	6,516	14,380
Total of district	...	...	...	...	...	...	8,281	6,767	15,048
SHAHABAD.									
Arrah town	...	...	...	...	...	...	24	20	44
Buxar town	...	...	...	...	...	...	21	16	37
Dumraon town	...	...	...	...	...	...	8	8	16
Jagadispur town	...	...	...	...	...	...	10	4	14
Sasaram town	...	...	...	...	...	...	20	21	41
Bhabua town	...	...	...	...	...	...	8	1	9
Total of towns	...	...	...	...	...	...	91	70	161
Total of rural	...	...	...	...	...	...	7,234	5,909	13,143
Total of district	...	...	...	...	...	...	7,225	5,979	13,204



## DIX I—contd.

rural areas in the districts of Bihar Province during the year 1936—contd.

4			5			6			7		
Muhammadans.			Buddhists.			Other classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
64	44	108	...	...	...	...	...	..	254	224	478
13	8	21	...	...	...	...	...	...	51	39	90
3	7	10	...	...	...	...	...	...	36	27	63
7	4	11	...	...	...	...	...	...	28	20	48
2	...	2	...	...	...	...	...	...	27	10	37
2	...	2	...	...	...	...	...	...	19	10	29
91	63	154	...	...	...	...	...	...	415	330	745
253	200	453	...	...	...	...	...	...	5,814	4,764	10,578
344	263	607	...	...	...	...	...	...	6,229	5,094	11,323
80	63	143	...	...	...	...	...	...	449	281	730
5	1	6	...	...	...	...	...	...	22	11	33
3	1	4	...	...	...	...	...	...	34	24	58
88	65	153	...	...	...	...	...	...	505	316	821
460	358	818	...	...	...	...	...	...	8,314	6,874	15,188
533	423	956	...	...	...	...	...	...	8,819	7,190	16,009
1	1	2	...	...	...	...	...	...	25	21	46
5	1	6	...	...	...	...	...	...	26	17	43
...	...	...	...	...	...	...	...	...	8	8	16
...	...	...	...	...	...	...	...	...	10	4	14
3	6	9	...	...	...	...	...	...	23	27	50
...	...	...	...	...	...	...	...	...	8	1	9
9	8	17	...	...	...	...	...	...	100	78	178
279	222	501	...	...	...	...	...	...	7,513	6,131	13,644
288	230	518	...	...	...	...	...	...	7,613	6,209	13,822

Annual form No. IVA.—Deaths under one year registered according to class in each town and

1				2			3		
Registering circle.				Christians.			Hindus.		
				Male.	Female.	Total.	Male.	Female.	Total.
SARAN.									
Chapra town	...	...	...	...	...	...	94	67	161
Revelganj town	...	...	...	...	...	...	20	24	44
Siwan town	...	...	...	...	...	...	27	24	51
Total of towns	...	...	...	...	...	...	141	115	256
Total of rural	...	...	...	...	...	...	4,541	3,269	7,810
Total of district	...	...	...	...	...	...	4,682	3,384	8,066
CHAMPARAN.									
Bettiah town	...	...	...	7	6	13	48	22	70
Motihari town	...	...	...	...	...	...	19	15	34
Total of towns	...	...	...	7	6	13	67	37	104
Total of rural	...	...	...	2	1	3	4,885	3,818	8,703
Total of district	...	...	...	9	7	16	4,952	3,855	8,807
MUZAFFARPUR.									
Muzaffarpur town	...	...	...	...	...	...	67	43	110
Sitamarhi town	...	...	...	...	...	...	31	23	54
Hajipur town	...	...	...	...	...	...	54	39	93
Lalganj town	...	...	...	...	...	...	23	18	41
Total of towns	...	...	...	...	...	...	175	123	298
Total of rural	...	...	...	2	1	3	5,357	4,512	9,869
Total of district	...	...	...	2	1	3	5,532	4,635	10,167
DARBHANGA.									
Darbhanga town	...	...	...	...	...	...	126	114	240
Roserah town	...	...	...	...	...	...	22	15	37
Samastipur town	...	...	...	...	...	...	18	13	31
Madhubani town	...	...	...	...	...	...	30	24	54
Total of towns	...	...	...	...	...	...	196	166	362
Total of rural	...	...	...	...	...	...	4,752	3,981	8,733
Total of district	...	...	...	...	...	...	4,948	4,147	9,095



DIX I—contd.

rural areas in the districts of Bihar Province during the year 1936—contd

4			5			6			7		
Muhammadans.			Buddhists.			Other classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
29	15	44	...	...	...	...	...	...	123	82	205
...	1	1	...	...	...	...	...	...	20	25	45
2	3	5	...	...	...	...	...	...	29	27	56
31	19	50	...	...	...	...	...	...	172	134	306
1,333	901	2,234	...	...	...	...	...	...	5,874	4,170	10,044
1,364	920	2,284	...	...	...	...	...	...	6,046	4,304	10,350
8	14	22	...	...	...	...	...	...	63	42	105
5	4	9	...	...	...	...	...	...	24	19	43
13	18	31	...	...	...	...	...	...	87	61	148
676	508	1,184	...	...	...	...	...	...	5,563	4,327	9,890
689	526	1,215	...	...	...	...	...	...	5,650	4,388	10,038
19	8	27	...	...	...	...	...	...	86	51	137
9	7	16	...	...	...	...	...	...	40	30	70
18	8	26	...	...	...	...	...	...	72	47	119
5	6	11	...	...	...	...	...	...	28	24	52
51	29	80	...	...	...	...	...	...	226	152	378
1,094	867	1,961	...	...	...	...	...	...	6,453	5,380	11,833
1,145	896	2,041	...	...	...	...	...	...	6,679	5,532	12,211
9	11	20	...	...	...	...	...	...	135	125	260
...	...	...	...	...	...	...	...	...	22	15	37
1	1	2	...	...	...	...	...	...	19	14	33
2	1	3	...	...	...	...	...	...	32	25	57
12	18	25	...	...	...	...	...	...	208	179	387
532	436	968	...	...	...	...	...	...	5,284	4,417	9,701
544	449	993	...	...	...	...	...	...	5,492	4,596	10,088

## Annual form No. IVA.—Deaths under one year according to class in each town and

1	2			3		
	Christians.			Hindus.		
	Male.	Female.	Total.	Male.	Female.	Total.
MONGHYR						
Monghyr town ...	...	...	...	79	69	148
Jamalpur town ...	...	...	...	58	51	109
Total of towns ...	...	...	...	137	120	257
Total of rural ...	...	...	...	4,639	3,965	8,604
Total of district ...	...	...	...	4,776	4,085	8,861
BHAGALPUR.						
Bhagalpur town ...	...	...	...	133	115	248
Colgong town ...	...	...	...	8	9	17
Total of towns ...	...	...	...	141	124	265
Total of rural ...	...	...	...	3,542	2,978	6,520
Total of district ...	...	...	...	3,683	3,102	6,785
PURNEA.						
Purnea town ...	...	...	...	21	21	42
Kishenganj town ...	...	...	...	6	3	9
Katihar town ...	...	...	...	9	7	16
Forbesganj town ...	...	...	...	14	9	23
Total of towns ...	...	...	...	50	40	90
Total of rural ...	...	...	...	2,854	2,372	5,226
Total of district ...	...	...	...	2,904	2,412	5,316
SANTAL PARGANAS.						
Sahibganj town ...	...	...	...	4	9	13
Deoghar town ...	...	...	...	6	10	16
Dumka town ...	...	...	...	3	1	4
Madhupur town ...	...	...	...	1	5	6
Total of towns ...	...	...	...	14	25	39
Total of rural ...	3	1	4	1,653	1,255	2,898
Total of district ...	3	1	4	1,657	1,280	2,937
HAZARIBAGH.						
Hazaribagh town ...	...	...	...	18	12	30
Chatra " ...	...	...	...	7	3	10
Giridih " ...	...	...	...	8	6	14
Total of towns ...	...	...	...	33	21	54
Total of rural ...	...	...	...	2,222	1,867	4,089
Total of district ...	...	...	...	2,255	1,888	4,143



## DIX I—contd

rural areas in the districts of Bihar Province during the year 1936—contd.

4			5			6			7		
Muhammadans.			Buddhists.			Other classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
11	12	23	...	...	...	...	...	...	90	81	171
13	4	17	...	...	...	...	...	...	71	55	126
24	16	40	...	..	...	...	...	...	161	136	297
932	725	1,667	...	...	...	...	...	...	5,571	4,690	10,261
956	741	1,697	...	...	...	...	...	...	5,732	4,826	10,558
21	28	49	...	...	...	...	...	...	154	143	297
1	...	1	...	...	...	...	...	...	9	9	18
22	28	50	..	...	...	...	...	...	163	152	315
564	441	1,005	...	...	...	...	...	..	4,106	3,419	7,525
586	469	1,055	...	...	...	...	...	...	4,269	3,571	7,840
1	7	8	...	...	...	...	...	...	22	28	50
3	2	5	...	...	...	...	...	...	9	5	14
1	...	1	...	...	...	...	...	...	10	7	17
2	3	5	...	...	...	...	...	...	16	12	28
7	12	19	...	...	...	...	...	...	57	52	109
1,947	1,661	3,608	...	...	...	9	7	16	4,810	4,040	8,850
1,954	1,673	3,627	...	...	...	9	7	16	4,867	4,092	8,959
4	...	4	...	...	...	...	...	...	8	9	17
1	1	2	...	...	...	...	...	...	7	11	18
1	1	2	...	...	...	...	1	1	4	3	7
...	...	...	...	...	...	1	...	1	2	5	7
6	2	8	...	...	...	1	1	2	21	28	49
185	149	334	...	...	...	415	371	786	2,246	1,776	4,022
191	151	342	...	...	...	416	372	788	2,267	1,804	4,071
8	4	12	...	..	...	...	...	...	26	16	42
3	3	6	...	...	...	...	...	...	10	6	16
2	4	6	...	...	...	...	...	...	10	10	20
13	11	24	...	...	...	...	...	...	46	32	78
255	231	486	...	...	...	12	8	20	2,489	2,106	4,595
268	242	510	...	...	...	12	8	20	2,535	2,133	4,673

## Annual form No. IVA.—Deaths under one year registered according to class in each town and

1				2			3		
Registering circle.				Christians.			Hindus.		
				Male.	Female.	Total.	Male.	Female.	Total.
<b>RANCHI.</b>									
Ranchi town	...	...	...	7	4	11	6	6	12
Lohardaga „	...	...	...	4	7	11	8	6	14
Total of towns	...	...	...	11	11	22	14	12	26
Total of rural	...	...	...	410	344	754	872	732	1,604
Total of district	...	...	...	421	355	776	886	744	1,630
<b>PALAMAU.</b>									
Daltonganj town...	...	...	...	...	...	...	13	11	24
Total of rural	..	...	...	20	36	56	2,298	2,004	4,302
Total of district	...	...	...	20	36	56	2,311	2,015	4,326
<b>MANBHUM.</b>									
Purulia town	...	...	...	...	1	1	19	7	26
Raghunathpur town	...	...	...	...	...	...	11	12	23
Jhaldia town	...	...	...	...	...	...	10	17	27
Dhanbad town	...	...	...	...	...	...	19	6	25
Total of towns	...	...	...	...	1	1	59	42	101
Total of rural	...	...	...	...	...	...	1,995	1,371	3,366
Total of district	...	...	...	...	1	1	2,054	1,413	3,467
<b>SINGHBHUM.</b>									
Chaibassa town	...	...	...	1	1	2	11	17	28
Chakradharpur town	...	...	...	...	1	1	14	14	28
Jugsalai town	...	...	...	...	1	1	9	9	18
Jamshedpur town	...	...	...	...	1	1	19	13	32
Total of towns	...	...	...	1	4	5	53	53	106
Total of rural	...	...	...	8	8	16	504	404	908
Total of district	...	...	...	9	12	21	557	457	1,014
<b>Province.</b>									
Total of towns	...	...	...	19	22	41	1,925	1,477	3,402
Total of rural	...	...	...	445	391	836	60,763	49,517	110,280
Total of districts	...	...	...	464	413	877	62,688	50,994	113,682



DIX I—contd.

rural areas in the districts of Bihar Province during the year 1936—concl'd.

4			5			6			7		
Muhammadans.			Buddhists.			Other classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
2	3	5	...	...	...	3	1	4	18	14	32
3	1	4	...	...	...	1	5	6	16	19	55
5	4	9	...	...	...	4	6	10	34	33	67
122	94	216	...	...	...	1,237	1,081	2,318	2,641	2,251	4,892
127	98	225	...	...	...	1,241	1,087	2,328	2,675	2,284	4,959
...	1	1	...	...	...	...	...	...	13	12	25
162	146	308	...	...	...	5	...	5	2,485	2,186	4,671
162	147	309	...	...	...	5	...	5	2,498	2,198	4,696
...	3	3	...	...	...	...	...	...	19	11	30
...	...	...	...	...	...	...	...	...	11	12	23
...	1	1	...	...	...	...	...	...	10	18	28
3	1	4	...	...	...	...	...	...	22	7	29
3	5	8	...	...	...	...	...	...	62	48	110
75	43	118	...	...	...	35	36	71	2,105	1,450	3,555
78	48	126	...	...	...	35	36	71	2,167	1,498	3,665
2	3	5	...	...	...	5	11	16	19	32	51
2	1	3	...	...	...	...	...	...	16	16	32
...	1	1	...	...	...	...	...	...	9	11	20
1	3	4	...	...	...	...	...	...	20	17	37
5	8	13	...	...	...	5	11	16	64	76	140
7	8	15	...	...	...	354	275	629	873	695	1,568
12	16	28	...	...	...	359	286	645	937	771	1,708
380	302	682	...	...	...	10	18	28	2,334	1,819	4,153
8,866	6,990	15,856	...	...	...	2,067	1,778	3,845	72,141	58,676	130,817
9,246	7,292	16,538	...	...	...	2,077	1,796	3,873	74,475	60,495	134,970

Annual Form No. V.—Deaths registered according to class in

1	2	3													
No.	District.	Number of deaths registered.													
		Christians.			Hindus.			Muhammadans.			Buddhists.			Other classes.	
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
	PATNA DIVISION.														
1	Patna ... ..	2	2	4	17,746	16,756	34,502	1,740	1,662	3,402	...	...	...	...	...
2	Gaya ... ..	...	...	...	26,627	24,316	50,943	2,738	2,465	5,203	2	...	2	..	1
3	Shahabad ... ..	3	1	4	20,716	20,247	40,963	1,325	1,192	2,517	...	...	...	...	...
	TIRHUT DIVISION.														
4	Saran ... ..	...	...	...	23,536	21,526	45,362	2,587	2,316	4,903	...	...	...	...	...
5	Champaran ... ..	35	35	70	20,759	18,029	38,788	3,424	2,771	6,195	...	...	...	...	...
6	Muzaffarpur ... ..	7	6	13	32,613	29,918	62,531	4,699	4,009	8,708	...	...	...	...	...
7	Darbhanga ... ..	2	...	2	30,890	27,850	58,740	4,632	4,105	8,737	...	...	...	...	...
	BHAGALPUR DIVISION.														
8	Monghyr ... ..	13	8	21	24,433	22,574	47,007	2,544	2,273	4,817	...	...	...	...	...
9	Bhagalpur ... ..	14	14	28	25,779	23,486	49,265	2,699	2,269	4,968	...	...	...	5	2
10	Purnea ... ..	6	3	9	17,141	15,356	32,497	11,914	10,310	22,224	...	...	...	112	91
11	Santal Parganas ... ..	74	56	130	10,881	9,221	20,102	2,048	1,682	3,730	...	...	...	7,334	5,950
	CHOTA NAGPUR DIVISION.														
12	Hazaribagh ... ..	10	6	16	14,141	12,524	26,665	1,505	1,267	2,772	...	...	...	229	177
13	Ranchi ... ..	1,964	1,756	3,720	5,608	4,944	10,552	583	480	1,063	...	...	...	9,125	7,986
14	Palamau ... ..	121	94	215	10,350	9,250	19,600	966	864	1,830	...	...	...	...	3
15	Manbhum ... ..	28	23	51	15,642	12,782	28,424	906	733	1,639	...	...	...	1,400	1,118
16	Singhbhum ... ..	24	63	147	3,857	3,400	7,257	122	84	206	...	...	...	4,202	3,484
	Total for the Province	2,363	2,067	4,430	300,719	272,479	573,198	44,432	38,482	82,914	2	...	2	22,457	18,812



DIX I—contd.

districts of Bihar Province during the year 1936—conold.

Ratio of deaths per 1,000 of population.															No
Christians.			Hindus.			Muhammadans.			Buddhists.			Other classes.			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1·0	1·3	1·1	20·8	21·2	21·0	17·2	16·3	16·7	...	...	...	...	...	...	1
...	...	...	24·7	23·0	23·9	23·3	18·1	25·0	153·8	...	105·2	...	2·7	1·3	2
2·7	0·7	1·7	22·4	22·1	22·2	18·0	15·2	16·6	...	...	...	...	...	...	3
...	...	...	21·9	19·7	20·8	17·5	14·3	15·8	...	...	...	...	...	...	4
20·8	17·7	19·1	22·9	20·3	21·7	19·4	15·5	17·4	...	...	...	...	...	...	5
14·5	14·7	14·6	25·9	23·1	24·5	25·4	19·4	22·5	...	...	...	...	...	...	6
6·9	...	3·7	22·7	20·2	21·5	21·4	18·2	19·8	...	...	...	...	...	...	7
12·3	9·3	10·9	23·7	22·1	22·9	23·2	19·1	21·1	...	...	...	...	...	...	8
15·8	20·6	17·9	25·9	24·0	24·9	21·5	18·2	19·9	..	...	...	2·8	1·2	2·1	9
6·2	3·5	4·9	25·7	24·8	25·3	26·1	23·9	25·7	...	...	...	16·2	14·8	15·6	10
11·4	8·1	9·7	22·8	19·4	21·1	18·1	15·1	16·6	...	...	...	17·1	13·7	15·4	11
5·8	4·1	5·0	23·6	20·5	22·0	17·7	14·5	16·1	...	...	...	3·3	2·6	3·0	12
15·1	13·2	14·2	12·9	11·3	12·1	16·6	14·8	16·1	...	...	...	50·7	42·2	46·3	13
28·5	21·1	24·9	30·8	2·6	29·2	25·8	23·3	24·5	...	...	...	...	0·09	0·04	14
7·1	6·1	6·6	18·9	16·6	17·8	14·7	14·7	14·7	...	...	...	27·7	22·8	25·3	15
8·3	6·6	7·5	16·2	15·3	15·7	7·4	8·2	7·7	...	...	...	20·4	15·9	18·1	16
14·3	12·4	13·3	23·0	21·2	22·1	21·6	18·4	20·0	5·8	...	3·8	22·9	18·7	20·8	

*Annual Form no. VA.—Death rates according to class, in urban and rural areas separately in each district of Bihar province during the year 1936.*

Number.	Districts.		Christians.	Hindus.	Muhammadans.	Buddhists.	Other classes.	Total.
1	2		3	4	5	6	7	8
1	Patna	... { Urban ... Rural ...	1·1 1·2	14·3 21·9	10·6 19·9	... ...	... ...	13·2 21·7
2	Gaya	... { Urban ... Rural ...	... ...	30·7 23·6	27·9 19·7	... 111·1	... 3·1	29·8 23·2
3	Shahabad	... { Urban ... Rural ...	2·2 1·5	6·1 23·6	6·0 19·3	... ...	... ...	6·0 22·7
4	Saran	... { Urban ... Rural ...	... ...	18·7 28·8	19·0 15·6	... ...	... ...	18·8 20·2
5	Champanan	... { Urban ... Rural ...	26·4 11·9	17·6 21·7	17·2 17·4	... ...	... ...	17·9 21·0
6	Muzaffarpur	... { Urban ... Rural ...	5·4 29·7	17·4 24·7	16·1 22·5	... ...	... ...	17·0 24·1
7	Darbhanga	... { Urban ... Rural ...	... 13·1	20·5 21·5	11·5 20·3	... ...	... ...	18·0 21·4
8	Monghyr	... { Urban ... Rural ...	6·1 21·7	14·3 23·2	13·2 21·7	... ...	... ...	13·7 23·0
9	Bhagalpur	... { Urban ... Rural ...	12·8 23·1	18·8 25·9	13·0 20·7	... ...	... 2·2	17·1 24·5
10	Purnea	... { Urban ... Rural ...	9·7 3·9	10·4 25·6	11·6 25·3	... ...	15·4 15·6	10·8 25·4
11	Santal Parganas	... { Urban ... Rural ...	7·9 9·8	4·7 21·8	3·3 17·2	... ...	15·1 15·4	4·6 18·5
12	Hazaribagh	... { Urban ... Rural ...	1·9 6·7	8·2 22·5	4·9 17·0	... ...	... 3·0	7·1 20·1
13	Ranchi	... { Urban ... Rural ...	5·9 14·4	7·7 12·3	6·5 18·6	... ...	34·9 46·4	8·8 21·2
14	Palaman	... { Urban ... Rural ...	... 25·4	6·8 29·6	2·5 25·3	... ...	... 0·04	5·8 26·7
15	Manbhum	... { Urban ... Rural ...	7·0 7·7	12·5 18·0	7·1 15·2	... ...	63·8 25·3	11·5 18·2
16	Singhbhum	... { Urban ... Rural ...	5·6 9·2	7·4 17·6	5·6 13·4	... ...	8·7 18·3	7·0 17·7
Total for the Province			7·5 13·7	15·5 22·4	12·5 29·6	... 5·0	24·5 20·8	13·7 22·0



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APPENDIX I.  
Annual Form No. VI.

Annual Form No. VI.—Deaths registered from different causes in the

1	2	3			4			5			6	7	8	9	10	11
No.	Districts and Towns.	Population according to census of 1931.			Births.			Birth rates.			Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and diarrhoea.	
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.						
DISTRICTS EX-CLUDING TOWNS.																
PATNA DIVISION.																
1	Patna ...	811,800	776,390	1,588,190	32,598	31,256	63,849	20·5	19·7	40·2	85	730	...	21,656	486	
2	Gaya ...	1,134,074	1,149,203	2,283,277	54,010	52,191	106,201	23·7	22·8	46·5	345	1,863	...	38,880	67	
3	Shahabad ..	936,948	938,911	1,875,859	41,818	38,311	80,029	22·3	20·3	42·6	675	3,086	...	29,502	13	
TIRHUT DIVISION.																
4	Saran ...	1,181,847	1,234,146	2,415,993	47,953	45,398	93,351	19·8	18·8	33·6	104	1,269	876	28,127	180	
5	Champaran ...	1,055,771	1,044,430	2,100,201	41,188	38,680	79,863	18·6	18·4	38·0	1	277	27	36,426	31	
6	Muzaffarpur ...	1,397,930	1,460,854	2,858,784	57,019	54,237	111,256	19·9	19·0	33·9	41	276	203	61,039	71	
7	Darbhanga ...	1,518,105	1,549,764	3,067,869	53,099	50,902	104,001	17·3	16·6	33·9	41	841	5	57,520	144	
BHAGALPUR DIVISION.																
8	Monghyr ...	1,101,576	1,102,369	2,203,945	43,999	41,627	85,626	19·9	18·9	38·8	32	2,285	...	38,292	97	
9	Bhagalpur ...	1,081,084	1,064,468	2,145,553	36,020	34,269	70,289	16·8	15·9	32·7	445	1,264	...	45,367	27	
10	Parnea ...	1,101,882	1,038,438	2,140,320	36,938	33,752	70,690	17·2	15·8	33·0	385	4,304	...	46,456	60	
11	Santal Parganas ...	998,960	1,003,976	2,002,936	26,773	25,354	52,127	13·3	12·7	26·0	814	2,515	..	30,853	112	
CHOTA NAGPUR DIVISION.																
12	Hazaribagh ...	725,619	740,881	1,466,500	23,430	22,557	46,037	16·0	15·4	31·4	684	538	...	24,597	35	
13	Ranchi ...	746,329	762,726	1,509,055	23,413	23,185	46,597	15·5	15·3	30·8	425	73	...	25,952	946	
14	Palamau ...	403,177	403,519	806,696	17,303	17,130	34,433	21·4	21·2	42·6	186	694	...	17,355	26	
15	Manbhum ...	908,615	845,832	1,754,497	25,251	23,351	48,602	14·4	13·3	27·7	1,595	1,011	...	26,074	145	
16	Singbhum ...	401,278	414,089	815,367	10,633	10,332	20,965	1·0	12·7	25·7	52	779	...	12,201	14	
Total for the province.		15,504,995	15,530,046	31,035,041	571,489	542,432	1,113,921	18·4	17·5	35·9	5,910	21,857	1,114	540,297	2,454	2,3
TOWNS.																
PATNA DISTRICT.																
1	Patna City ...	92,238	67,452	159,690	1,560	1,423	2,982	9·8	9·9	18·7	50	166	1	647	187	
2	Bihar ...	24,532	22,462	46,994	355	367	722	7·5	7·8	15·3	6	46	...	164	14	
3	Dinapore ...	12,847	11,874	24,221	198	201	399	8·1	8·3	16·4	1	31	...	119	9	
4	Barh ...	5,179	4,571	9,750	192	183	375	19·7	18·7	38·4	...	4	...	89	13	
5	Khagole ...	4,119	3,293	7,412	107	75	182	14·4	10·1	24·5	...	13	...	44	3	
GAYA DISTRICT.																
6	Gaya ...	50,625	37,380	88,005	1,423	1,186	2,609	16·1	13·5	29·6	15	33	...	1,604	73	
7	Tikari ...	26,887	2,794	5,481	118	114	232	21·5	20·8	42·3	...	2	...	76	...	
8	Daudnagar ...	6,267	5,443	11,699	239	222	461	20·4	19·0	39·4	1	3	...	114	1	



X I—contd.

districts and towns of Bihar Province, during the year 1936—contd.

12					13	14			15														16	
Injuries.					Total.	All other causes.	Total deaths from all causes.			Ratio of deaths per 1,000 of population.														No.
Suicide.	Female.	Wounds or accidents.	Snake-bite or killed by wild animals.	Rabies.			Male.	Female.	Total.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.						
																		Male.	Female.	Total.	Mean of previous five years.			
5	105	156	225	4	585	10,157	17,741	13,762	34,502	0.05	0.5	...	13.6	0.3	0.5	0.3	6.4	21.8	21.5	21.7	23.8	1		
7	45	210	240	8	589	11,219	27,650	25,365	53,015	0.1	0.8	...	17.0	0.03	0.02	0.2	4.9	24.4	22.0	23.2	28.9	2		
1	59	210	150	3	473	8,905	21,664	21,103	42,767	0.4	1.6	...	15.7	0.01	0.01	0.2	4.8	23.1	22.4	22.7	25.5	3		
7	117	283	516	23	1,026	16,658	25,419	23,520	48,939	0.04	0.4	0.3	11.6	0.07	0.3	0.4	6.9	21.5	19.0	20.2	22.6	4		
2	13	121	320	8	474	7,002	23,754	20,485	44,239	0.000	0.1	0.01	17.3	0.01	0.0004	0.2	3.3	22.5	19.6	21.0	23.4	5		
7	30	405	597	9	1,068	7,110	36,568	33,280	69,848	0.01	0.1	0.1	21.3	0.02	0.001	0.3	2.4	26.1	22.7	24.4	24.6	6		
1	12	600	568	1	1,192	5,909	34,543	31,166	65,709	0.01	0.2	0.001	18.7	0.04	0.001	0.4	1.9	22.7	20.1	21.4	22.3	7		
6	13	186	377	11	603	8,342	26,399	24,302	50,701	0.01	1.0	...	17.4	0.04	0.02	0.3	4.2	23.9	22.0	23.0	25.2	8		
2	21	104	313	12	482	5,132	27,677	25,068	52,745	0.2	0.6	...	21.1	0.01	0.01	0.2	2.4	25.6	23.5	24.5	23.4	9		
0	66	35	388	2	571	2,641	23,898	25,534	54,432	0.2	2.0	...	21.7	0.03	0.007	0.2	1.2	26.2	24.6	25.4	23.4	10		
2	43	72	136	8	321	2,097	20,234	16,805	37,069	0.4	1.2	...	15.4	0.05	0.2	0.2	1.0	20.3	16.7	18.5	19.6	11		
8	47	163	82	2	322	3,222	15,657	13,808	29,495	0.4	0.4	...	16.8	0.02	0.03	0.2	2.2	21.6	18.6	20.1	22.1	12		
3	20	140	136	4	333	4,163	17,020	14,915	31,935	0.3	0.04	...	17.2	0.6	0.03	0.2	2.7	22.8	19.5	21.2	23.2	13		
5	22	91	124	5	267	3,038	11,399	10,179	21,578	0.2	0.8	...	21.5	0.03	0.01	0.3	3.8	20.3	25.2	30.7	28.0	14		
8	42	188	115	7	410	2,583	17,598	14,381	31,979	0.9	0.6	...	14.8	0.08	0.08	0.2	1.4	19.3	17.0	18.2	18.4	15		
1	23	40	111	2	197	1,239	7,799	6,607	14,486	0.1	0.9	...	14.9	0.01	0.005	0.2	1.5	19.4	16.1	17.7	16.6	16		
5	678	3,043	4,398	109	8,913	100,407	360,079	323,360	683,439	0.2	0.7	0.03	17.4	0.08	0.07	0.3	3.2	23.2	20.8	23.0	23.3			
2	2	75	4	...	83	977	1,179	1,130	2,309	0.3	1.0	0.006	4.0	1.2	1.2	0.5	6.1	12.8	16.7	14.5	15.5	1		
	...	8	1	...	9	159	236	196	422	0.1	0.9	...	3.5	0.3	0.5	0.2	3.4	9.2	8.7	8.9	8.6	2		
	...	1	1	...	2	61	115	122	237	0.04	1.3	...	4.9	0.4	0.6	0.1	2.5	9.3	10.3	6.8	12.9	3		
	...	17	...	...	17	45	99	85	184	...	0.4	...	9.1	1.3	1.6	1.8	4.6	19.0	18.6	18.8	14.8	4		
	...	2	...	...	2	28	50	44	94	...	1.7	...	5.9	0.4	0.5	0.3	3.7	12.1	13.3	12.7	12.0	5		
2	...	51	6	...	59	954	1,572	1,279	2,851	0.2	0.4	...	18.2	0.8	1.3	0.7	10.8	31.0	34.2	32.4	36.0	6		
1	...	...	1	...	2	22	58	44	102	...	0.4	...	13.8	...	...	0.4	4.0	21.6	15.8	18.6	25.7	7		
1	1	2	...	...	4	49	87	94	181	0.08	0.2	...	9.7	0.08	0.8	0.3	4.2	13.9	17.3	15.5	19.6	8		

## Annual Form No. VI.—Deaths registered from different causes in the

1	2	3			4			5			6	7	8	9	10	11
No.	Districts and Towns.	Population according to census of 1931.			Births.			Birth rate.			Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and diarrhoea.	Respiratory diseases.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.						
	TOWNS—contd.															
	SHAHABAD DISTRICT.															
9	Arrah ...	26,625	23,387	48,022	292	226	518	5.9	4.6	10.5	...	7	...	140	5	
10	Buxar ...	7,420	6,019	13,440	192	170	362	14.3	12.6	26.9	1	3	...	79	6	
11	Dumraon ...	7,602	6,819	14,421	140	90	230	6.7	6.8	16.5	...	3	...	30	...	...
12	Jagadispur ...	4,791	4,870	9,661	110	93	206	11.4	9.9	21.3	...	...	...	35	...	...
13	Sasaram ...	12,473	12,702	25,175	352	290	642	14.0	11.5	25.5	1	11	...	171	6	1
14	Bhabhua ...	3,220	2,782	6,002	100	91	191	16.6	15.2	31.8	...	...	...	32	...	...
	SARAN DISTRICT.															
15	Chapra...	25,934	21,514	47,448	883	691	1,574	18.6	14.5	33.1	8	71	...	291	35	7
16	Revelganj ...	4,297	4,525	8,812	202	162	364	22.9	18.4	41.3	...	...	...	59	4	
17	Siwan ...	7,981	6,234	14,215	266	241	510	16.7	17.1	35.8	...	...	8	107	2	
	CHAMPARAN DISTRICT.															
18	Bettiah ...	14,659	13,232	27,941	627	561	1,188	23.4	20.1	42.5	...	9	119	274	11	
19	Motihari ..	10,526	7,019	17,545	200	174	374	11.4	9.9	21.3	...	6	...	99	15	
	MUZAFFARPUR DISTRICT.															
20	Muzaffarpur ...	25,050	17,999	43,046	553	523	1,106	13.5	12.1	25.6	2	20	3	243	32	24
21	Sitamarhi ...	6,255	4,446	10,701	131	156	342	17.2	14.7	31.9	...	21	...	131	6	4
22	Hajipur ...	9,936	9,363	19,299	390	343	733	10.2	17.7	37.9	1	15	...	218	5	11
23	Lalganj...	4,676	4,516	9,192	153	155	308	19.9	20.1	40.0	...	...	...	99	15	16
	DARBHANGA DISTRICT.															
24	Darbhanga ...	32,274	28,402	60,676	1,241	1,005	2,246	21.4	16.6	37.0	...	2	...	480	23	43
25	Roserah ...	4,533	4,336	8,869	135	116	251	15.2	13.1	28.3	...	50	...	32	2	1
26	Samastipur ...	6,101	3,790	9,891	138	123	261	18.9	12.4	26.3	...	1	...	39	...	5
27	Madhubani ...	9,946	8,843	18,789	280	314	594	14.3	16.7	31.0	...	...	...	116	2	4
	MONGHYR DISTRICT.															
28	Monghyr ...	27,843	25,020	52,863	816	693	1,509	15.4	13.1	28.5	...	58	...	300	15	36
29	Jamalpur ...	16,378	13,968	30,346	533	512	1,045	17.5	16.9	34.4	1	72	...	167	46	23
	BHAGALPUR DISTRICT.															
30	Bhagalpur ...	46,868	36,979	83,847	932	849	1,781	11.7	10.1	21.8	25	184	...	673	46	49
31	Colgong ..	2,632	2,601	5,233	118	80	198	22.5	15.3	37.8	...	...	...	74	...	...
	PURNEA DISTRICT.															
32	Purnea ...	9,255	6,219	15,474	184	159	342	11.9	10.2	22.1	...	3	...	214	12	5
33	Kishanganj ...	5,817	3,129	8,946	79	59	138	8.8	6.6	15.4	...	1	...	47	1	3
34	Katihar ...	9,014	6,850	15,864	94	60	174	5.9	5.0	10.9	...	2	...	20	1	3
35	Forbesganj ...	3,713	2,226	5,939	98	57	155	16.5	9.6	26.1	1	11	...	61	11	1



IX I—contd.

districts and towns of Bihar Province, during the year 1936—contd.

11					12	13			14														15
Injuries.					All other causes.	Total deaths from all causes.			Ratio of deaths per 1,000 of population.														No.
Suicide.		Wounds or accidents.	Snake-bite or killed by wild animals.	Rabies.		Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.					
Female.	Male.																	Male.	Female.	Total.	Cholera.	Small-pox.	
2	1	8	...	...	11	37	114	91	205	...	0.1	..	2.8	0.1	0.1	0.2	0.7	4.2	4.1	4.1	4.9	9	
...	...	...	...	...	...	37	73	55	128	0.1	0.2	...	5.9	0.4	0.1	...	2.8	5.8	9.1	9.5	10.8	10	
...	1	...	...	...	1	17	23	28	51	...	0.2	...	2.1	...	...	0.1	1.1	3.0	4.1	3.5	3.7	11	
...	1	...	...	...	1	13	24	30	54	...	...	...	3.6	...	0.5	0.1	1.3	5.0	6.1	5.5	9.1	12	
...	3	...	...	...	3	31	120	118	238	0.03	0.4	...	6.8	0.2	0.6	0.1	1.2	9.6	9.2	9.9	9.5	13	
...	1	...	...	...	1	8	26	15	41	...	...	...	5.3	...	...	0.2	1.3	8.0	5.3	6.8	11.0	14	
...	...	78	1	...	79	480	549	465	1,014	0.2	1.5	...	6.1	0.7	1.4	1.3	9.6	21.1	21.6	21.3	19.2	15	
1	2	...	...	...	3	54	63	62	125	...	...	...	6.7	0.4	0.5	0.3	6.1	14.6	13.7	14.2	14.2	16	
..	3	...	...	...	3	64	92	95	187	...	...	0.5	7.5	0.1	0.2	0.2	4.5	11.5	15.2	13.1	14.5	17	
...	3	1	...	...	4	146	309	263	572	...	0.3	4.3	9.8	0.4	0.3	0.1	5.2	21.0	19.8	20.4	9.5	18	
...	12	3	...	...	15	104	155	87	242	...	0.3	...	5.6	0.9	0.1	0.9	5.9	11.7	12.3	13.7	11.1	19	
3	41	5	...	...	54	222	343	253	601	0.04	0.4	0.06	5.6	0.7	0.6	1.2	5.1	13.6	14.3	13.9	16.7	20	
...	3	...	...	...	3	53	118	105	218	...	1.9	...	12.2	0.5	0.3	0.3	4.9	18.0	23.6	20.3	24.0	21	
1	21	3	...	...	26	141	218	197	415	...	0.8	...	11.3	0.2	0.5	1.3	7.2	21.9	21.0	21.3	20.5	22	
...	3	3	1	...	7	38	77	93	170	0.1	...	...	10.7	1.6	1.1	0.7	4.1	16.4	20.5	18.4	23.7	23	
2	43	3	1	...	52	664	720	544	1,264	...	0.03	...	7.9	0.3	0.7	0.8	10.9	22.3	19.1	20.8	22.0	24	
...	2	...	...	...	2	85	89	83	172	...	5.6	...	3.6	0.2	0.1	0.2	9.5	19.6	19.1	19.3	15.6	25	
...	3	...	...	...	4	57	54	52	106	...	0.1	...	3.9	...	0.5	0.4	5.7	8.8	13.7	10.7	12.5	26	
1	3	1	1	...	7	99	118	110	223	...	...	...	6.1	0.1	0.2	0.3	5.2	11.3	13.4	12.1	12.5	27	
...	5	1	...	...	6	251	349	317	666	...	1.1	...	5.7	0.3	0.7	0.1	4.7	12.5	12.7	13.6	14.0	28	
...	15	...	...	...	16	183	244	236	478	0.03	2.4	...	6.1	1.5	0.7	0.5	4.4	14.7	11.9	15.7	15.3	30	
10	35	5	...	...	60	392	774	655	1,429	0.3	2.2	...	8.0	0.6	0.6	0.7	4.7	16.5	17.7	17.4	12.2	30	
...	1	1	...	...	2	18	46	48	91	...	...	...	14.1	...	...	0.4	3.4	17.4	18.4	17.9	20.6	31	
...	30	...	1	...	31	24	162	127	289	...	0.2	...	13.8	0.3	0.3	2.0	1.5	17.5	10.4	18.7	12.7	32	
1	1	...	...	...	2	9	31	32	63	..	0.1	...	5.2	0.1	0.3	0.2	1.0	5.3	15.2	7.0	8.7	33	
...	...	1	...	...	1	14	22	19	41	...	0.1	...	1.3	0.06	0.2	0.06	0.9	2.4	3.8	2.6	4.1	34	
...	...	...	1	...	1	23	60	48	108	0.2	1.3	...	10.3	1.8	0.2	0.2	8.7	16.2	21.6	18.2	14.1	35	

## Annual Form No. VI.—Deaths registered from different causes in the

1	2	3			4			5			6	7	8	9	10	11
No.	District and Town.	Population according to census of 1931.			Births.			Birth rate.			Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and diarrhoea.	Respiratory diseases.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.						
	TOWNS— <i>continued</i> .															
	SANTAL PARGANAS DISTRICT.															
36	Sahibganj ...	8,530	7,353	15,883	63	58	121	3·0	3·7	7·6	1	31	...	33	4	...
37	Deoghar ...	8,117	6,100	14,217	56	45	101	3·9	3·2	7·1	20	5	..	38	1	...
38	Dumka ...	5,317	4,154	9,471	45	45	99	4·7	4·8	9·5	...	...	...	26	...	2
39	Madhupur ...	4,997	3,988	8,985	41	37	78	4·6	4·1	8·7	...	...	...	28	...	1
	HAZARIBAGH DISTRICT.															
40	Hazaribagh ...	10,903	10,074	20,977	263	217	483	12·7	10·3	23·0	...	1	..	114	2	...
41	Chatra ...	4,312	4,446	8,758	73	75	153	8·9	8·5	17·4	1	9	...	70	3	...
42	Giridih ...	11,122	10,000	21,122	118	89	207	5·6	4·2	9·8	...	4	...	63	...	...
	RANCHI DISTRICT.															
43	Ranchi ...	26,918	23,599	50,517	261	217	478	5·2	4·2	9·4	6	9	...	144	13	...
44	Lohardaga ...	3,816	3,761	7,577	108	72	180	14·2	9·5	23·7	...	...	...	207	4	...
	PALAMU DISTRICT.															
45	Daltonganj ...	6,601	5,439	12,040	110	77	187	9·1	6·4	15·5	...	...	...	43	4	...
	MANBHAM DISTRICT.															
46	Purulia ...	14,388	11,586	25,974	286	260	546	11·0	10·0	21·0	11	2	...	204	...	...
47	Raghunathpur ..	3,654	3,485	7,139	116	92	208	16·2	12·9	29·1	2	...	...	92	2	...
48	Jharia ...	3,470	3,454	6,924	122	107	229	17·6	15·4	33·0	3	4	...	109	2	...
49	Dhanbad ...	9,882	6,476	16,356	195	134	329	11·9	8·2	20·1	2	7	...	29	7	1
	SINGBHAM DISTRICT.															
50	Chaibassa ...	5,716	5,069	10,785	128	131	259	11·9	12·1	24·0	1	29	...	82	4	...
51	Chakradharpur ..	6,215	4,976	11,191	99	75	174	8·8	6·7	15·5	...	11	...	55	1	...
52	Jagsalai ...	5,075	3,646	8,721	131	138	269	15·0	15·3	30·8	...	...	...	28	3	...
53	Jamshedpur ...	51,137	32,601	83,738	175	133	298	2·0	1·5	3·5	...	37	...	178	13	...
(a)	Total for all Towns	733,983	592,191	1,326,176	15,992	13,821	29,813	12·1	10·4	22·5	160	997	131	8,636	661	71
(a)	Total for the whole Province.	16,238,978	16,122,239	32,361,217	587,481	556,253	1,143,734	18·1	17·2	35·3	6,070	22,654	1,245	548,933	3,115	3,110

(1) Excluding cantonment population.



K I—contd.

districts and towns of Bihar and Orissa Province, during the year 1936—concl'd.

11					12	13			14														15
Injuries.					All other causes.	Total deaths from all causes.			Ratio of deaths per 1,000 of population.														No.
side.	Female.	Wounds or accidents.	Snake-bite or killed by wild animals.	Rabies.		Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.					
																		Male.	Female.	Total.	Mean of previous five years.		

*Births and Deaths registered in the cantonment of t*

1	2			3			4						5	6	7	8	9	10
No.	Name of cantonment.			Indian non-military population according to Census of 1931.			Births.			Birth-rate.			Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and diarrhoea.	Respiratory diseases.
				Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.						
1	Dinapur	...	...	5,909	4,368	10,217	135	189	274	13.2	13.6	26.8	...	9	...	73	3	



FORM No. VI.

ihar Province, during the year 1936.

11						12	13			14								15			
Injuries.						All other causes.	Total deaths from all causes.			Ratio of deaths per 1,000 of population.							All causes.			No.	
Male.	Female.	Wounds or accidents.	Snake-bite or killed by wild animals.	Rabies.	Total.		Male.	Female.	Total.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	Male.	Female.		Total.
..	..	1	2	..	3	59	80	81	161	..	0·9	..	0 3	1·3	1·3	0·3	5·7	13·3	18·8	15·7	1

Deaths registered from different kinds of fever

Municipalities.				Malaria.	Enteric Fever.	Measles.	Relapsing Fever(Spirochaeta).	Kala Azar.	Influenza.	Cerebrospinal Fever.	Thyphus Fever.	Blackwater Fever.	Other Fevers.	Dysentery.	Diarrhoea.
1				2	3	4	5	6	7	8	9	10	11	12	13
PATNA DISTRICT.															
Patna City	...	...	...	...	...	...	...	...	...	...	...	...	647	1	
Bihar	...	...	...	12	...	...	...	...	12	...	15	...	125	9	
Dinapore	...	...	...	...	...	...	...	...	...	...	...	...	119	3	
Barh	...	...	...	88	...	...	...	...	...	1	...	...	...	13	...
Khagole	...	...	...	...	...	...	...	...	...	...	...	...	44	3	...
GAYA DISTRICT.															
Gaya	...	...	...	...	...	...	...	...	...	...	...	...	1,604	73	...
Tikari	...	...	...	...	...	...	...	...	...	...	...	...	76	...	...
Dan Nagar	...	...	...	18	...	9	...	...	12	...	...	...	75	1	...
SHAHABAD DISTRICT.															
Arrah	...	...	...	13	...	...	...	...	...	...	...	...	127	5	...
Buxar	...	...	...	...	...	...	...	...	...	...	...	...	79	2	...
Dumraon	...	...	...	...	...	...	...	...	...	...	...	...	36	...	...
Jagdishpur	...	...	...	8	4	...	3	...	3	...	...	...	17	...	...
Sasaram	...	...	...	94	...	...	...	...	...	...	...	...	77	6	...
Bhabua	...	...	...	4	...	28	...	...	...	...	...	...	...	...	...
CHAMPARAN DISTRICT.															
Be tiah	...	...	...	25	...	...	1	5	15	1	10	...	217	9	...
Motihari	...	...	...	...	...	...	...	1	...	...	...	...	98	14	...
MUZAFFARPUR DISTRICT.															
Muzaffarpur	...	...	...	...	...	3	...	...	...	...	...	...	240	21	...
Hajipur	...	...	...	...	...	...	...	...	...	...	...	...	218	5	...
Lalganj	...	...	...	99	...	...	...	...	...	...	...	...	...	15	...
Sitamarhi	...	...	...	...	...	...	...	...	...	...	...	...	131	5	...
MONGHYR DISTRICT.															
Monghyr	...	...	...	3	3	4	...	7	3	...	3	4	273	3	...
Jamalpur	...	...	...	7	...	1	...	...	2	...	...	...	177	14	...
PURNEA DISTRICT.															
Purnea	...	...	...	185	...	3	...	...	5	...	1	...	20	8	...
Katihar	...	...	...	15	...	2	...	1	2	...	...	...	...	1	...
Kishanganj	...	...	...	43	...	...	...	...	1	...	1	...	...	1	...
Forbesganj	...	...	...	51	...	7	...	1	...	...	1	1	...	7	...
SANTAL PARGANAS.															
Sahibganj	...	...	...	...	...	...	...	...	...	...	...	...	23	...	...
Deoghar	...	...	...	27	...	...	...	...	1	...	...	...	10	1	...
Dumka	...	...	...	1	...	...	...	...	...	...	...	...	25	...	...
Madanpur	...	...	...	...	...	...	...	...	...	...	...	...	28	...	...
RANCHI DISTRICT.															
Ranchi	...	...	...	84	...	...	...	...	1	...	...	...	59	...	1
Lohardaga	...	...	...	50	...	...	...	...	...	...	...	...	157	...	...
MANBHUM DISTRICT.															
Purnia	...	...	...	78	...	...	...	...	2	...	...	...	124	1	...
Jhalla	...	...	...	50	...	...	...	...	17	...	8	...	34	2	...
Raghubarnathpur	...	...	...	10	48	...	...	...	...	...	...	...	34	1	...
Dhanbad	...	...	...	6	2	...	...	1	1	...	1	...	18	6	...
SINGHBHUM DISTRICT.															
Chalabassa	...	...	...	75	...	...	...	...	...	...	...	...	7	4	...
Chakradharpur	...	...	...	...	...	...	...	...	...	...	...	...	55	1	...
Jugsalai	...	...	...	8	...	...	...	...	...	...	...	...	20	...	9
Jamshedpur	...	...	...	...	...	...	...	...	...	...	...	...	173	4	...
SARAN DISTRICT.															
Chapra	...	...	...	...	...	...	...	5	...	...	3	...	282	11	24
Reyilganj	...	...	...	...	...	...	...	...	...	...	...	...	59	2	2
Siwan	...	...	...	...	...	...	...	...	21	...	2	...	84	...	2



Pneumonia.	Pulmonary Tuberculosis.	Whooping cough.	Other respiratory diseases.	Beriberi.	Acute poliomyelitis.	Diphtheria.	Chickenpox.	Mumps.	Tuberculosis of joints.	Other tubercular diseases.	Leprosy.	Cancer.	Deaths from child-birth.	Deaths under one year.	Infantile mortality rate per 1,000 births.
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
...	...	1	197	...	...	...	5	...	...	...	...	...	...	478	160.3
...	...	...	24	...	...	...	...	...	...	...	...	...	12	90	124.6
...	...	1	13	...	...	...	52	...	...	...	...	1	10	63	157.9
...	...	16	...	...	...	...	...	...	...	...	...	...	...	37	98.6
...	...	...	4	1	...	...	13	...	...	...	...	...	4	39	159.3
...	...	98	15	...	...	...	25	...	...	...	...	...	103	730	270.8
...	...	...	...	...	...	...	2	...	...	...	...	...	9	33	142.2
...	...	...	9	...	...	...	...	...	...	...	...	...	11	58	135.8
...	...	...	5	...	...	...	...	...	...	...	...	...	...	46	68.8
...	...	1	1	...	...	...	...	...	...	...	...	...	...	43	118.8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	67.0
...	...	5	...	...	...	...	...	...	...	...	...	...	4	14	68.0
...	...	4	11	...	...	...	11	...	...	...	...	...	...	50	77.9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	47.1
11	...	...	...	...	...	...	3	...	...	12	...	...	1	105	88.4
...	...	1	21	...	...	...	5	...	...	...	1	...	...	43	116.0
...	...	4	21	...	...	...	3	...	...	...	...	4	43	137	123.9
...	...	4	7	...	...	...	12	...	...	...	...	6	2	119	162.3
...	...	...	10	...	...	...	...	...	...	...	...	...	...	52	141.3
...	...	...	4	...	...	...	18	...	...	...	...	...	6	70	204.7
24	8	4	...	...	...	...	54	...	...	6	...	...	6	171	112.2
9	...	14	...	6	...	...	56	...	...	...	...	...	1	136	120.6
...	...	5	...	...	...	...	1	...	...	...	...	...	3	50	146.6
1	...	...	3	...	...	...	...	...	...	...	...	...	1	17	97.7
1	...	...	2	...	...	...	1	...	...	...	...	...	5	14	101.4
...	1	...	...	...	...	...	4	...	...	...	...	...	3	23	130.6
...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	140.5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	18	178.2
...	...	1	1	...	...	...	...	...	...	...	...	...	2	7	77.8
...	...	...	2	...	...	...	...	...	...	...	...	...	...	7	89.7
...	...	...	5	...	...	3	1	...	...	13	...	...	1	32	66.9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	35	194.4
3	...	...	3	...	...	...	1	...	...	1	...	...	...	30	54.9
...	...	...	6	...	...	...	2	...	...	...	...	...	...	28	122.3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	23	110.6
10	...	...	...	...	...	...	...	...	...	...	3	...	3	29	88.1
...	...	...	...	...	...	...	...	...	...	...	...	...	3	5	196.9
...	...	...	...	...	...	...	...	...	...	...	...	...	5	32	168.9
...	...	...	1	...	...	...	...	...	...	...	...	...	...	20	74.3
...	...	...	1	...	...	...	7	...	...	...	...	...	...	37	124.4
17	...</														

## Annual Form No. VII.—Deaths registered from Cholera in t

1	2	3	4									
No.	District.	Circles of registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
		Number in each district.	Number from which deaths from cholera were reported.	Number in each district.	Number from which deaths from cholera were reported.							
PATNA DIVISION.												
1	Patna ... ..	20	14	2,315	70	2	33	6	11	9	18	
2	Gaya ... ..	16	14	6,058	223	12	10	1	20	48	29	
3	Shahabad ... ..	17	5	4,735	152	...	1	5	40	146	285	
	Total ... ..	53	33	13,108	545	14	44	12	71	203	332	
TIRHUT DIVISION.												
4	Saran ... ..	13	9	4,305	32	...	...	7	11	35	33	
5	Champaran ... ..	11	1	2,548	1	...	1	...	...	...	...	...
6	Muzaffarpur ... ..	14	9	4,059	21	10	1	6	5	5	6	
7	Darbhanga ... ..	14	4	3,135	18	8	3	1	8	...	...	
	Total ... ..	52	23	14,047	72	18	5	14	24	40	39	
BHAGALPUR DIVISION.												
	Monghyr ... ..	13	8	2,610	13	...	...	4	6	10	5	
9	Bhagalpur ... ..	14	14	3,080	90	42	37	2	10	2	2	
10	Purnea ... ..	17	9	4,160	180	56	6	13	56	47	45	
11	Santal Parganas ... ..	10	8	10,160	454	21	5	21	10	14	69	
	Total ... ..	54	39	20,010	737	119	48	40	82	73	121	
CHOTA NAGPUR DIVISION.												
12	Hazaribagh ... ..	21	12	6,087	75	21	...	3	25	...	1	
13	Ranchi ... ..	32	14	3,838	182	...	...	...	2	1	6	
14	Palamanu ... ..	10	8	3,134	146	...	...	...	3	11	7	...
15	Manbhum ... ..	35	33	4,642	580	23	88	138	266	399	267	
16	Singhbhum ... ..	13	4	3,013	12	4	14	19	15	1	...	...
	Total ... ..	111	71	20,714	995	48	102	160	311	412	281	
	Total for the Province ... ..	270	166	67,879	2,349	199	199	226	488	728	773	



IX I—contd.

istricts of Bihar Province, during each month of the year 1936.

					6			7			8	1
August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
					Male.	Female.	Total.	Male.	Female.	Total.		
10	1	3	26	8	84	58	142	0·1	0·06	0·07	1·1	1
26	21	21	129	34	196	165	361	0·2	0·1	0·1	2·0	2
39	28	52	4	...	359	318	677	0·3	0·3	0·3	1·2	3
75	50	76	159	42	639	541	1,180	0·2	0·2	0·2	1·4	
...	...	20	...	...	46	66	112	0·04	0·05	0·04	0·3	4
...	...	...	...	...	...	1	1	...	0·001	0·0004	1·0	5
5	...	1	...	...	29	15	44	0·02	0·01	0·01	0·4	6
10	...	...	...	...	22	19	41	0·01	0·01	0·01	0·5	7
15	...	21	...	...	97	101	198	0·02	0·02	0·02	0·5	
...	...	...	...	...	19	14	33	0·02	0·01	0·01	1·4	8
72	45	64	100	71	277	193	470	0·2	0·2	0·2	1·8	9
162	1	...	18	98	187	199	386	0·2	0·2	0·2	0·5	10
131	86	60	155	91	442	393	835	0·4	0·3	0·4	0·8	11
219	132	124	273	260	925	799	1,724	0·2	0·2	0·2	1·2	
81	95	148	256	48	334	351	685	0·4	0·4	0·4	1·0	12
223	68	46	...	...	231	200	431	0·3	0·3	0·3	0·3	13
26	61	32	25	21	92	94	186	0·2	0·2	0·2	1·0	14
148	88	17	24	40	747	866	1,613	0·7	0·9	0·9	0·6	15
...	...	...	...	..	30	23	53	0·1	0·1	0·1	0·1	16
478	312	243	305	109	1,434	1,534	2,968	0·4	0·5	0·4	0·6	
787	494	464	787	411	3,095	2,975	6,070	0·2	0·2	0·2	0·9	

## Annual Form No. VIII.--Deaths registered from small-pox in t

1	2	3	4	5							
No.	District.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.
		Number in each district.	Number from which deaths from small-pox were reported.	Number in each district.	Number from which deaths from small-pox were reported.						
PATNA DIVISION.											
1	Patna ... ..	20	20	2,315	231	116	117	167	190	201	8
2	Gaya ... ..	16	16	6,058	745	101	250	249	312	389	19
3	Shahabad ... ..	17	15	4,735	631	360	453	433	545	596	38
	Total ... ..	53	51	13,108	1,607	577	820	849	1,047	1,186	66
TIRHUT DIVISION.											
4	Saran ... ..	13	11	4,315	392	47	69	108	197	332	30
5	Champaran ... ..	11	7	2,548	151	36	27	21	39	49	6
6	Muzaffarpur ... ..	14	12	4,059	191	37	19	25	40	107	4
7	Darbhanga ... ..	14	13	3,135	215	53	47	80	205	273	8
	Total ... ..	52	43	14,047	949	173	162	234	481	761	48
BHAGALPUR DIVISION.											
8	Monghyr ... ..	13	13	2,610	356	161	241	302	444	553	35
9	Bhagalpur ... ..	14	13	3,080	188	136	144	201	297	320	17
10	Purnea ... ..	17	17	4,160	755	226	306	722	936	1,162	48
11	Santal Parganas ... ..	10	8	10,160	1,076	108	177	258	495	555	37
	Total ... ..	54	51	20,010	2,575	631	868	1,483	2,172	2,590	1,34
CHOTA NAGPUR DIVISION											
12	Hazaribagh ... ..	21	21	6,087	306	103	53	53	103	110	6
13	Ranchi ... ..	32	12	3,838	40	11	..	3	11	10	1
14	Palamanu ... ..	10	8	3,134	478	31	88	93	107	132	8
15	Manbhum ... ..	35	34	4,642	625	72	109	142	201	209	8
16	Singhbhum ... ..	13	11	3,013	254	38	14	114	247	208	18
	Total ... ..	111	86	20,714	1,703	255	264	405	669	669	30
	Total for the Province ... ..	270	231	67,879	6,834	1,636	2,114	2,971	4,369	5,206	2,80



X I—contd.

istricts of Bihar Province, during each month of the year 1936.

						6			7		8			9	1
July.	August.	September.	October.	November.	December.	Total.			Number of deaths among children.		Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
						Male.	Female.	Total.	Under 1 year.	One year and under 10 years.	Male.	Female.	Total.		
51	25	5	3	2	33	487	512	999	317	378	0·5	0·5	0·5	0·4	1
157	66	51	30	26	79	916	985	1,901	99	252	0·8	0·8	0·8	0·9	2
136	56	43	15	38	54	1,479	1,631	3,110	369	665	1·5	1·6	1·6	0·8	3
344	147	99	48	66	166	2,832	3,128	6,010	785	1,295	0·9	1·0	1·0	0·7	
141	31	24	20	42	26	708	632	1,340	139	255	0·5	0·5	0·5	0·6	4
26	7	9	1	1	15	148	144	292	63	41	0·1	0·1	0·1	0·5	5
25	11	1	5	1	22	179	155	334	57	84	0·1	0·1	0·1	0·3	6
75	34	12	3	7	16	452	442	894	21	13	0·2	0·2	0·2	0·3	7
267	83	46	29	51	79	1,487	1,373	2,860	230	393	0·3	0·2	0·2	0·4	
134	83	36	23	26	55	1,237	1,178	2,415	313	575	1·1	1·0	1·0	0·7	
76	33	17	14	14	22	773	675	1,448	...	...	0·7	0·6	0·6	0·5	9
204	162	54	46	37	32	2,263	2,058	4,321	404	808	2·0	1·9	2·0	1·2	10
250	143	61	37	39	50	1,358	1,193	2,551	42	154	1·3	1·2	1·2	0·4	11
664	421	168	120	116	159	5,631	5,104	10,735	759	1,537	1·3	1·2	1·2	0·7	
25	45	16	4	15	7	324	278	602	75	120	0·4	0·4	0·4	0·4	12
15	...	...	6	8	3	44	38	82	...	...	0·05	0·04	0·05	0·2	13
68	45	20	11	8	10	352	342	694	...	...	0·8	0·8	0·8	0·4	14
34	36	31	7	12	75	554	470	1,024	59	112	0·6	0·5	0·5	0·1	15
61	10	11	9	7	12	467	389	856	38	94	0·9	0·8	0·9	0·3	16
203	136	78	37	50	107	1,741	1,517	3,258	172	326	0·5	0·5	0·5	0·3	
1,478	787	391	234	283	511	11,741	11,122	22,863	1,946	3,551	0·7	0·7	0·7	0·5	

## Annual Form No. IX.—Deaths registered from Fevers in the distri

1	2	3	4	5								
No.	District.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
		Number in each district.	Number from which deaths from fevers were reported.	Number in each district.	Number from which deaths from fevers were reported.							
PATNA DIVISION.												
1	Patna ... ..	20	20	2,315	2,301	1,334	1,300	1,646	1,908	2,533	1,869	2,2
2	Gaya ... ..	16	16	6,058	6,000	2,827	2,349	2,540	3,039	4,003	3,402	3,2
3	Shahabad ... ..	17	17	4,735	4,670	2,047	1,635	1,911	2,083	3,559	3,107	2,6
	Total ... ..	53	53	13,108	12,971	6,203	5,314	6,097	7,030	10,100	8,378	8,2
TIRHUT DIVISION.												
4	Saran ... ..	13	13	4,305	4,217	1,916	1,742	2,020	2,332	2,743	2,737	2,7
5	Champanan ... ..	11	11	2,548	2,520	2,802	2,043	2,034	3,423	3,764	3,404	2,4
6	Muzaffarpur ... ..	14	14	4,059	4,050	4,077	3,439	4,184	4,627	6,356	5,451	4,0
7	Darbhanga ... ..	14	14	3,135	3,085	3,758	3,354	4,087	4,975	5,799	4,899	3,4
	Total ... ..	52	52	14,047	13,872	12,553	10,578	12,325	15,407	18,662	16,491	12,6
BHAGALPUR DIVISION.												
8	Monghyr .. ..	13	13	2,610	2,590	2,569	2,672	2,731	3,096	3,866	3,149	2,6
9	Bhagalpur ... ..	14	14	3,080	3,035	3,444	3,087	3,785	3,370	3,716	3,026	2,8
10	Purnea ... ..	17	17	4,160	4,099	3,491	3,409	4,148	4,392	4,952	3,755	2,9
11	Santal Parganas ... ..	10	10	10,160	9,312	2,519	2,366	2,387	2,320	2,567	2,355	2,5
	Total ... ..	54	54	20,010	19,036	12,023	11,534	13,051	13,178	15,101	12,285	10,9
CHOTA NAGPUR DIVISION.												
12	Hazaribagh ... ..	21	21	6,087	4,930	3,096	2,224	2,246	2,329	2,361	1,646	1,5
13	Ranchi ... ..	32	32	3,838	3,610	1,840	1,911	2,073	2,226	2,162	1,981	2,0
14	Palamau ... ..	10	10	3,134	2,810	1,745	1,338	1,347	1,289	1,375	1,260	1,5
15	Manbhum ... ..	35	35	4,642	4,515	2,053	2,250	2,173	2,365	2,388	1,984	1,9
16	Singhbhum ... ..	13	13	3,013	3,011	1,037	1,041	1,202	989	934	887	9
	Total ... ..	111	111	20,714	18,876	9,771	8,764	9,041	9,198	9,220	7,758	7,
	Total for Province ... ..	270	270	67,879	64,755	40,555	36,190	40,514	44,813	53,083	44,912	39,



IX 1—contd.

Bihar Province, during each month of the year 1936.

					6			7			8	1
August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
					Male.	Female.	Total.	Male.	Female.	Total.		
2,283	1,738	2,164	1,636	2,115	11,445	11,347	22,792	11·9	12·7	12·3	13·0	1
4,947	4,265	3,659	3,195	3,174	21,001	19,673	40,674	17·6	16·5	17·0	20·4	2
3, 13	2,896	2,392	2,132	2,134	14,835	15,154	29,989	14·8	15·2	15·0	17·4	3
10,613	8,899	8,215	6,963	7,423	47,281	46,174	93,455	15·0	15·0	15·0	17·2	
2,883	2,808	2,399	1,959	2,293	15,203	13,381	28,584	12·4	10·5	11·5	12·8	4
3,269	2,973	2,790	3,106	4,750	19,680	17,119	36,799	18·2	16·0	17·1	17·1	5
5,078	4,661	6,018	6,140	7,618	32,242	29,488	61,730	22·3	19·6	21·0	20·3	6
4,604	4,555	5,410	5,770	7,520	30,499	27,688	58,187	13·0	17·3	18·3	18·5	7
15,834	14,997	16,617	16,975	22,181	97,624	87,676	185,300	18·4	16·2	17·2	17·4	
3,401	3,384	3,531	3,687	4,007	20,018	18,761	38,779	17·5	16·4	16·9	17·9	8
3,777	3,840	4,248	5,333	5,638	24,117	21,997	46,114	21·3	19·9	20·6	18·2	9
3,456	2,809	3,424	4,275	5,777	24,786	22,012	46,798	21·9	20·3	21·4	19·9	10
3,075	3,072	2,640	2,362	2,796	16,850	14,118	30,968	16·4	13·7	15·1	16·1	11
13,709	13,105	13,843	15,657	18,218	85,771	75,888	162,659	19·3	17·8	18·5	18·1	
1,898	2,021	1,728	1,759	1,983	13,130	11,714	24,844	17·5	15·3	16·3	17·1	12
3,072	2,690	2,164	1,858	2,277	13,912	12,391	26,303	17·9	15·6	17·4	18·5	13
1,449	1,549	1,617	1,641	1,533	9,168	8,230	17,398	22·4	20·1	21·2	21·8	14
2,606	2,498	1,824	1,703	2,712	14,548	11,960	26,508	15·4	15·7	14·6	15·4	15
1,113	956	870	996	1,568	6,727	5,812	12,539	14·3	12·6	13·4	12·8	16
10,138	9,714	8,203	7,957	10,073	57,485	50,107	107,592	17·2	15·2	16·2	16·9	
50,294	46,715	46,878	47,552	57,895	288,161	260,845	549,006	17·7	16·2	16·9	18·5	

## Annual Form No. X.—Deaths registered from Dysentery and Diarrhœa in t

1	2	3	4	5									
No.	District.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.	July.	August.
		Number in each district.	Number from which deaths from Dysentery and Diarrhoea were reported.	Number in each district.	Number from which deaths from Dysentery and Diarrhoea were reported.								
PATNA DIVISION.													
1	Patna ... ..	20	20	2,315	359	42	31	36	50	39	60	90	9
2	Gaya ... ..	13	12	6,058	112	11	1	8	12	2	19	15	1
3	Shahabad ... ..	17	5	4,735	22	3	...	...	...	2	2	2	
	Total ... ..	53	37	13,108	493	56	32	38	62	43	81	107	11
TIRHUT DIVISION.													
4	Saran ... ..	13	13	4,305	170	13	15	16	18	22	33	12	2
5	Champaran ... ..	11	9	2,543	28	1	3	4	1	14	3	7	2
6	Muzaffarpur ... ..	14	12	4,059	91	7	16	10	20	25	8	8	
7	Darbhanga ... ..	14	5	3,135	115	20	3	4	9	18	3	40	3
	Total ... ..	52	39	14,047	404	41	37	34	48	79	47	67	9
BHAGALPUR DIVISION.													
8	Monghyr ... ..	13	11	2,610	92	4	7	12	10	21	8	29	1
9	Bhagalpur ... ..	14	11	3,080	26	9	2	1	5	5	4	21	
10	Purnea ... ..	17	13	4,160	27	2	2	5	11	3	16	7	2
11	Santal Parganas ... ..	10	7	10,160	113	18	7	5	2	17	14	15	1
	Total ... ..	54	42	20,010	258	33	18	23	28	46	42	72	6
CHOTA NAGPUR DIVISION.													
12	Hazaribagh ... ..	21	13	6,087	35	3	1	3	4	6	3	1	
13	Ranchi ... ..	32	26	3,838	485	39	51	59	61	63	77	147	20
14	Palamanu ... ..	10	6	3,134	17	1	7	1	1	...	1	3	
15	Manbhum ... ..	35	21	4,642	80	7	13	11	17	17	16	29	2
16	Singhbhum ... ..	13	9	3,013	28	5	2	...	4	3	3	4	
	Total ... ..	111	75	20,714	645	55	74	74	87	89	100	184	25
	Total for the Province	270	193	67,879	1,800	185	161	169	225	257	270	430	52



IX I—contd.

Districts of Bihar Province, during each month of the year 1936.

				6			7			8	1
September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
				Male.	Female.	Total.	Male.	Female.	Total.		
54	82	65	76	369	346	715	0.4	0.4	0.3	0.5	1
12	19	12	14	92	49	141	0.07	0.04	0.06	0.1	2
2	7	2	8	13	17	30	0.01	0.01	0.02	0.03	3
68	108	79	98	474	412	886	0.1	0.1	0.1	0.2	
19	12	10	26	125	96	221	0.1	0.07	0.1	0.2	4
1	2	...	1	33	24	57	0.03	0.02	0.02	0.007	5
5	10	9	3	69	60	129	0.04	0.04	0.04	0.05	6
10	17	4	6	109	62	171	0.06	0.03	0.05	0.06	7
35	41	23	36	336	242	578	0.06	0.04	0.05	0.08	
19	7	7	15	93	65	158	0.08	0.06	0.07	0.07	8
3	5	4	8	46	27	73	0.04	0.02	0.03	0.05	9
4	2	2	4	58	27	85	0.05	0.02	0.04	0.03	10
14	8	2	...	60	57	117	0.06	0.05	0.05	0.1	11
40	22	15	27	257	176	433	0.06	0.04	0.05	0.06	
...	1	6	2	26	13	39	0.03	0.02	0.02	0.04	12
125	74	33	28	548	414	962	0.7	0.5	0.6	0.5	13
1	5	1	...	18	12	30	0.04	0.03	0.04	0.03	14
3	8	7	4	83	73	156	0.08	0.08	0.08	0.08	15
4	1	3	2	13	16	34	0.03	0.03	0.03	0.04	16
133	89	50	36	693	528	1,221	0.3	0.2	0.2	0.2	
276	260	167	197	1,760	1,358	3,118	0.1	0.08	0.1	0.1	

Annual Form No. XI.—Deaths registered from Respiratory diseases in t

1	2			3		4		5						
No.	District.			Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
				Number in each district.	Number from which deaths from Respiratory diseases were reported.	Number in each district.	Number from which deaths from Respiratory diseases were reported.							
PATNA DIVISION.														
1	Patna	...	...	20	20	2,315	286	81	72	132	85	84	60	
2	Gaya	...	...	16	11	6,058	118	18	10	16	20	15	10	
3	Shahabad	...	...	17	6	4,735	31	3	13	2	2	4	3	
	Total	...		53	37	13,108	435	102	95	150	107	103	73	1
TIRHUT DIVISION.														
4	Saran	...	...	13	13	4,305	176	60	68	97	60	75	70	
5	Champanan	..	...	11	5	2,548	9	3	2	1	3	2	...	
6	Muzaffarpur	...	...	14	13	4,059	48	7	4	7	5	13	6	
7	Darbhanga	...	...	14	7	3,135	...	6	6	9	8	3	2	
	Total	...		52	38	14,047	233	76	80	114	76	93	78	
BHAGALPUR DIVISION.														
8	Monghyr	..	...	13	10	2,610	39	10	15	11	10	23	14	
9	Bhagalpur	...	...	14	11	3,080	929	11	9	9	9	7	5	
10	Purnea	...	...	17	10	4,160	13	...	1	4	4	8	2	
11	Santal Parganas	...	...	10	8	10,160	169	20	21	40	30	50	34	
	Total	...		54	39	20,010	250	41	46	64	53	88	55	
CHOTA NAGPUR DIVISION.														
12	Hazaribagh	...	...	21	13	6,087	20	6	2	18	4	4	4	...
13	Ranchi	...	...	32	14	3,838	15	5	5	3	4	5	5	
14	Palamau	...	...	10	6	3,134	11	1	5	2	1	...	...	...
15	Manbhum	...	...	35	23	4,642	95	17	17	20	11	10	12	...
16	Singhbhum	...	...	13	6	3,013	6	...	3	2	2	1	...	...
	Total	...		111	62	20,714	147	29	32	45	22	20	21	...
	Total for the Province	...		270	176	67,879	1,065	248	253	373	258	304	227	28



X I—contd.

istricts of Bihar Province, during each month of the year 1936.

					6			7			8	1
August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
					Male.	Female.	Total.	Male.	Female.	Total.		
85	80	88	94	117	553	520	1,073	0·5	0·6	0·5	0·5	1
9	9	21	9	20	103	71	174	0·08	0·06	0·07	0·06	2
5	2	5	3	6	30	20	50	0·03	0·02	0·02	0·03	3
99	91	114	106	143	686	611	1,297	0·2	0·2	0·2	0·2	
66	76	61	34	48	431	346	777	0·3	0·2	0·3	0·3	4
...	1	...	...	...	8	5	13	0·007	0·004	0·006	0·006	5
10	6	5	4	9	59	26	85	0·04	0·01	0·02	0·03	6
21	9	9	4	6	70	40	110	0·04	0·02	0·03	0·01	7
97	92	75	42	63	568	417	985	0·1	0·08	0·09	0·08	
2	11	1	1	5	64	45	109	0·05	0·04	0·05	0·03	8
3	5	2	2	12	45	32	77	0·04	0·03	0·03	0·03	9
...	...	2	2	1	17	10	27	0·01	0·01	0·01	0·01	10
29	30	17	23	32	257	104	361	0·2	0·1	0·2	0·1	11
34	46	22	28	50	383	191	574	0·08	0·04	0·06	0·05	
2	3	1	1	5	27	23	50	0·3	0·03	0·03	0·03	12
5	3	9	9	2	44	14	58	0·1	0·01	0·03	0·04	13
1	...	...	1	1	10	2	12	0·02	0·005	0·01	0·01	14
16	13	10	19	17	133	50	183	0·1	0·05	0·1	0·09	15
...	1	...	1	...	9	1	10	0·02	0·002	0·01	0·03	16
24	20	20	31	25	223	90	313	0·06	0·03	0·05	0·05	
254	249	231	207	281	1,800	1,309	3,169	0·1	0·08	0·1	0·09	

## Annual Form No. XII.—Deaths registered from Plague in t

1	2	3	4	5								
No.	District.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
		Number in each district.	Number from which deaths from Plague were reported.	Number in each district.	Number from which deaths from Plague were reported.							
PATNA DIVISION.												
1	Patna ... ..	20	1	2,315	...	...	...	...	1	...	...	...
2	Gaya ... ..	16	...	6,058	...	...	...	...	...	...	...	...
3	Shahabad ... ..	17	...	4,735	...	...	...	...	...	...	...	...
	Total ... ..	53	1	13,108	...	...	...	...	1	...	...	...
TIRHUT DIVISION.												
4	Saran ... ..	13	9	4,305	209	102	170	251	146	35	4	...
5	Champanan ... ..	11	3	2,548	9	34	24	59	17	3	2	...
6	Muzaffarpur ... ..	14	4	4,059	191	19	46	91	10	10	...	...
7	Darbhanga ... ..	14	1	3,135	1	5	...	...	...	...	...	...
	Total ... ..	52	17	14,047	410	160	240	401	173	48	6	1
BHAGALPUR DIVISION.												
8	Monghyr ... ..	13	...	2,010	...	...	...	...	...	...	...	...
9	Bhagalpur ... ..	14	...	3,080	...	...	...	...	...	...	...	...
10	Purnea ... ..	17	...	4,160	...	...	...	...	...	...	...	...
11	Santal Parganas ... ..	10	...	10,160	...	...	...	...	...	...	...	...
	Total ... ..	54	...	20,010	...	...	...	...	...	...	...	...
CHOTA NAGPUR DIVISION.												
12	Hazaribagh ... ..	21	...	6,087	...	...	...	...	...	...	...	...
13	Ranchi ... ..	32	...	3,838	...	...	...	...	...	...	...	...
14	Palamau ... ..	10	...	3,134	...	...	...	...	...	...	...	...
15	Manbhum ... ..	35	...	4,642	...	...	...	...	...	...	...	...
16	Singhbhum ... ..	13	...	3,013	...	...	...	...	...	...	...	...
	Total ... ..	111	...	20,714	...	...	...	...	...	...	...	...
Total for the Province ...		270	18	67,879	410	160	240	401	174	48	6	10



X I—concl'd.

istricts of Bihar Province, during each month of the year 1936

					6			7			8	1
August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
					Male.	Female.	Total.	Male.	Female.	Total.		
...	...	...	...	...	1	...	1	0·001	...	0·0005	0·007	1
...	...	...	...	...	...	...	...	...	...	...	0·005	2
...	...	...	...	...	...	...	...	...	...	...	0·003	3
...	...	...	...	...	1	...	1	0·0003	...	0·0002	0·005	
5	6	11	36	109	374	510	884	0·3	0·4	0·3	0·4	4
...	1	...	3	2	66	80	146	00·6	00·7	00·7	0·03	5
...	...	...	4	29	78	131	209	0·05	0·08	0·07	0·4	6
...	...	...	...	...	3	2	5	0·001	0·001	0·001	0·3	7
5	7	11	43	140	521	723	1,244	0·1	0·1	0·1	0·3	
...	...	...	...	...	...	...	...	...	...	...	0·2	8
...	...	...	...	...	...	...	...	...	...	...	...	9
...	...	...	...	...	...	...	...	...	...	...	...	10
...	...	...	...	...	...	...	...	...	...	...	...	11
...	...	...	...	...	...	...	...	...	...	...	0·05	
...	...	...	...	...	...	...	...	...	...	...	...	12
...	...	...	...	...	...	...	...	...	...	...	...	13
...	...	...	...	...	...	...	...	...	...	...	...	14
...	...	...	...	...	...	...	...	...	...	...	...	15
...	...	...	...	...	...	...	...	...	...	...	...	16
...	...	...	...	...	...	...	...	...	...	...	...	
5	7	11	43	140	522	723	1,245	0·03	0·04	0·04	0·1	

## APPENDIX II.

## PROVINCIAL.

Statement showing details of registration in areas in which it is compulsory.

Compulsory registration area.	Population according to Census of 1931.	Probable number of births at the rate of 286 per 1,000 married women between the ages of 16 and 40.	Actual number of births registered during the year.	Probable birth-rate per mille (columns 2 and 3).	Registered birth-rate per mille during the year.	Number of deaths registered during the year.		Death-rate per mille.		Number of persons prosecuted under Act IV (B. C.) of 1873.	Number of persons convicted.
						Including deaths in dispensary.	Excluding deaths in dispensary.	Including deaths in dispensary.	Excluding deaths in dispensary.		
1	2	3	4	5	6	7	8	9	10	11	12
1. Patna City ...	159,690	Not available.	2,982	Not available.	18.7	2,308	1,516	14.5	9.5	...	...
2. Bihar ...	46,994		722		15.3	422	363	8.9	7.7	...	...
3. Dinapore Nizamat ...	24,321		399		16.4	237	215	9.8	8.9	...	...
4. Barh ...	9,750		375		38.4	184	148	18.8	15.2	...	...
5. Khagol ...	7,412		182		24.5	94	94	12.7	12.7	...	...
6. Gaya ...	88,005		2,609		29.6	2,851	2,582	32.4	29.3	...	...
7. Tikari ...	5,481		232		42.3	102	102	18.6	18.6	...	...
8. Daudnagar ...	11,699		461		39.4	181	177	15.5	15.1	...	...
9. Arrah ...	48,922		518		10.5	205	105	4.1	2.1	7	...
10. Buxar ...	13,449		362		20.9	128	99	9.9	7.3	...	...
11. Dumraon ...	14,421		239		16.5	51	51	3.5	3.5	...	...
12. Jagdispur ...	9,661		206		21.3	54	53	5.5	5.5	...	...
13. Sasaram ...	25,175		642		25.5	238	212	9.4	8.9	...	...
14. Bhabna ...	6,002		191		31.8	41	41	6.8	6.8	...	...
15. Chapra ...	47,448		1,574		33.1	1,014	967	21.3	20.4	...	...
16. Revelganj ...	8,812		304		41.3	125	125	14.2	14.2	...	...
17. Siwan ...	14,215		510		35.8	187	138	13.1	9.7	...	...
18. Bettiah ...	27,941		1,188		42.5	572	467	20.4	16.7	81	...
19. Motihari ...	17,545		374		21.3	242	145	13.7	8.2	...	...
20. Muzaffarpur ...	43,049		1,106		25.6	601	473	13.9	11.0	...	...
21. Sitamarhi ...	10,701		342		31.9	218	169	20.3	15.8	...	...
22. Hajipur ...	19,299		733		37.9	415	392	21.5	20.3	...	...
23. Lalganj ...	9,193		368		40.0	170	170	18.4	18.4	...	...
24. Darbhanga ...	60,676		2,246		37.0	1,264	985	20.8	16.2	...	...
25. Roserah ...	8,869		251		28.3	172	172	19.3	19.3	...	...
26. Samastipur ...	9,891		261		26.3	106	77	10.7	7.8	...	...
27. Madhubani ...	18,789		594		31.0	228	193	12.1	10.3	...	...
28. Monghyr ...	52,863		1,509		28.5	666	532	12.6	10.6	...	...
29. Jamalpur ...	30,346		1,045		34.4	478	451	15.7	14.9	...	...
30. Bhagalpur ...	83,847		1,631		21.8	1,429	1,233	17.4	14.7	...	...
31. Colgong ...	5,233		198		37.8	94	94	17.9	17.9	...	...
32. Purnea ...	15,474		342		22.1	289	194	18.7	12.5	...	...
33. Kishanganj ...	8,946		138		15.4	63	...	7.0	...	...	...
34. Katihar ...	15,864		174		10.9	41	29	2.6	1.8	...	...
35. Forbesganj ...	5,939		155		26.1	108	108	18.2	18.2	...	...
36. Sahibganj ...	15,883		121		7.6	73	50	4.6	3.1	...	...
37. Deoghar ...	14,217		101		7.1	83	38	5.8	2.7	18	...
38. Dumka ...	9,471		90		9.5	32	...	3.3	...	...	...
39. Madhupur ...	8,965		78		8.7	29	39	4.4	4.3	...	...
40. Hazaribagh ...	20,977		483		23.0	174	48	8.3	2.3	5	...
41. Chatra ...	8,758		153		17.4	93	86	10.6	8.9	...	...
42. Giridih ...	21,123		207		9.8	97	78	4.6	3.7	...	...
43. Ranchi ...	50,517		478		9.4	282	66	5.5	1.3	4	...
44. Lohardaga ...	7,577		180		23.7	229	228	30.2	30.2	...	...
45. Daltonganj ...	12,040		187		15.5	70	12	5.8	1.0	...	...
46. Purnia ...	25,974		546		21.0	252	127	9.7	4.9	...	...
47. Raghunathpur ...	7,139		208		29.0	111	108	15.5	15.1	...	...
48. Jhaldah ...	6,924		229		33.0	125	125	15.0	18.0	...	...
49. Dhanbad ...	16,356		329		20.1	165	19	10.1	1.2	...	...
50. Chaitassa ...	10,785		259		24.0	188	149	17.4	13.7	...	...
51. Chakradharpur ...	11,191		174		15.5	119	91	10.6	8.1	...	...
52. Jugsalai ...	8,721		269		30.8	61	61	6.9	7.0	...	...
53. Jamshedpur ...	88,738		298		3.5	442	396	5.3	4.7	...	...
(a) Total ...	1,465,160		29,613		22.5	18,213	14,592	13.7	11.0	115	

(a) Excluding cantonment population.



## APPENDIX III.

## JHARIA MINING AREA.

## STATISTICS OF EPIDEMIC DISEASES.

1936.

Month.	Total births.	Total deaths.	Influenza.		Cholera.		Small-pox.		Plague.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	2	3	4	5	6	7	8	9	10	11
January ...	161	130	295	1	...	...	156	13	...	...
February ...	130	173	642	7	...	...	309	20	...	...
March ...	134	178	454	5	2	1	588	43	...	...
April ...	158	187	490	8	1	1	619	63	...	...
May ...	171	163	383	2	10	8	270	44	...	...
June ...	195	107	588	2	6	1	52	8	...	...
July ...	193	127	1,143	2	1	1	17	...	...	...
August ...	175	166	1,080	2	...	...	1	1	...	...
September ...	188	165	666	2	4	2	1	...	...	...
October ...	165	96	417	3	...	...	1	...	...	...
November ...	118	77	200	...	...	...	1	...	...	...
December ...	153	82	165	1	...	...	4	...	...	...
Total ...	1,941	1,651	6,522	35	24	14	2,019	191	...	...
Ratio per mile ...	15.1	12.8	50.8	0.3	0.2	0.1	15.7	1.5	...	...

N. B.—The figures relate to the labour population only and the ratios are calculated accordingly.

## APPENDIX IV.

*Summary of the activities of the Public Health Circle. Public Works Department relating to sanitary improvements to urban and rural areas of Bihar during the calendar year 1936.*

## I. Project.

(a) *Forecast*.—The following outline schemes were prepared and submitted to the local bodies concerned :—

	Rs.
(i) Monghyr drainage scheme for Lallepokhar, Ghositola and Madhopur Roads.	18,900
(ii) Bhagalpur drainage scheme for the station, Kotwali and Mansoorgange roads.	11,000
(iii) Darbhanga water-supply .. .. .	6,65,600
	<hr/>
	5,67,300
	(alternative)
(iv) Siwan.—Water-supply .. .. .	1,33,000
	<hr/>
Total ..	8,28,500
	<hr/>

(b) *Preliminary*.—The following schemes were prepared and submitted to the local bodies concerned :—

	Rs.
(i) Patna-Bankipore water-supply Ind extension. Provision of spill water drains.	28,500
(ii) Patna sewerage scheme in B. M. Das Road, Lal Behari and Swaranasan lanes.	15,337
(iii) Bettiah drainage scheme .. .. .	2,68,500
	<hr/>
Total ..	8,12,337
	<hr/>

(c) *Detailed*—

	Rs.
(i) Monghyr drainage scheme for the new town planning area.	69,400
(ii) Monghyr.—Re-arrangement of the water-supply distribution system in new town planning area.	44,200
(iii) Monghyr.—Extension of water-supply to outlying area ..	65,000
(iv) Muzaffarpur.—Earthquake damage repairs to the drains (submitted to the Secretary, Public Works Department).	1,20,831
(v) Lauthaha.—Drainage scheme (submitted to Government)	28,175
(vi) Dumra.—Water-supply (do.) .. .. .	59,600
(vii) Dumra drainage .. .. .	13,872
(viii) Sonapur.—Fourth tube well and pumping plant ..	16,735
(ix) Motihari.—Earthquake damage repairs to the drains ..	77,827
	<hr/>
Total ...	4,95,640
	<hr/>

## Construction—

(a) *Bhabua*.—About 3,200 r.ft. of drains were constructed. Further progress was not possible due to delay on the part of the municipality in obtaining possession of land for the outfall.



(b) *Bhagalpur*.—Two overhead tanks, staff quarters and re-arrangement of the distribution system of the waterworks were completed and work on a new intake and filtration plant was in progress.

(c) *Bihar*.—The boring for the 5" tube-well in connection with the drain flushing scheme was completed.

(d) *Daltonganj*.—(i) The water-supply re-organisation scheme was completed.

(ii) *Supplementary water-supply scheme*.—Two old boilers and one high lift pump were replaced and are in use, also one low lift pump was installed. Three settling tanks with pipe connection were completed except for arrangements for addition of coagulants.

(iii) Flood protection works for the intake were completed.

(e) *Deoghar*.—10' diameter surface well in the pilgrim camping ground was excavated to a depth of 45 feet below G. L. but could not be completed during the year due to the large quantities of water and to the very hard rock strata met which necessitated blasting.

(f) *Lauthaha*.—(i) Water-supply one tube well with pumping plant and the distribution system were completed and a supply given from October 1936. Works on the construction of the 2nd tube-well and the service reservoir was in progress.

(ii) *Drainage*.—Work was in progress and was completed in three out of the four blocks into which it is divided.

(g) *Monghyr*.—Water-supply re-organisation. The installation of unfiltered pumping plant on pontoons at Kastharinighat was completed and the work of installing filtered water pumping sets was in progress.

(h) *Patna*.

(i) *Drainage*.—The sewerage portion of the scheme was practically completed.

Construction of the outfall works is in progress. Contracts were accepted for the purification and pumping plants.

(ii) *Water-supply*.—The new 9" tube-well at Amlatola was completed.

(iii) Extensions of water mains in various lanes in the town were completed with the necessary standposts for use of the public.

(i) *Sonepur*.—A fourth 5" diameter tube-well was completed in time for use during the mela in November.

(j) Small tube-well with hand pumps were constructed in Lalganj, Katihar, Forbesganj and a supply of water provided for the melas at Bargaon, Angari, Bihta, Sonepur and Phulwari.

(k) *Borehole latrine*.—One was constructed in the Patna Administration Committee area.

(l) The municipalities of Arrah, Bhagalpur, Daltonganj, Gaya, Monghyr and Muzaffarpur were assisted in the maintenance of the public water-supply and no failure of a municipal water-supply occurred during the year.

(m) The Patna-Bankipore water-supply was maintained in a state of efficiency on behalf of the Joint Waterworks Committee.

E. R. SMITH,

*Offg. Superintending Engineer, Public Health  
Circle, Bihar.*





DIX.

of Bihar Province during the year 1936.

Urban areas.										
Municipalities.	Medical officers of Health.				Sanitary and Health inspectors.	Vaccinators.		Inspector of vaccination.	School Medical Officers.	Other Health staff.
	Holding D. P. H.		Licentiates (L. P. H. S.)			Male.	Female.			
	Whole time.	Part time.	Whole time.	Part time.						
12	13	14	15	16	17	18	19	20	21	22
{ Patna City ... ..	1	...	...	...	5	7	...	...	...	8
Patna Administration Committee	...	1	...	...	3	2	...	...	...	...
{ Bihar ... ..	...	...	...	...	1	1	...	...	...	2
{ Dinapur Nizamat ... ..	...	...	...	...	1	1	...	...	...	7
Dinapur Cantonment	1-R. A. M.C.	...	...	...	1	1	...	...	...	...
{ Barh ... ..	...	...	...	...	1	1	...	...	...	...
{ Khagole ... ..	...	...	...	...	1	1	...	...	...	...
{ Gaya ... ..	1	...	...	...	3	2	...	...	...	10
{ Tikari ... ..	...	...	...	...	...	1	...	...	...	...
{ Daudnagar ... ..	...	...	...	...	...	1	...	...	...	...
{ Arrah ... ..	...	...	...	...	2	2	...	...	...	...
Buxar ... ..	...	...	...	...	1	1	...	...	...	...
{ Dumraon ... ..	...	...	...	...	1	1	...	...	...	...
Jagdishpur	...	...	...	...	...	1	...	...	...	...
Sasaram ... ..	...	...	...	...	1	1	...	...	...	...
{ Bhabua ... ..	...	...	...	...	1	1	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...
{ Chapra ... ..	...	...	...	...	1	3	...	...	...	...
{ Revelganj ... ..	...	...	...	...	1	1	...	...	...	...
{ Siwan ... ..	...	...	...	...	...	1	...	...	...	...
{ Bettiah ... ..	...	...	...	...	1	1	...	...	...	...
{ Motihari ... ..	...	...	...	...	1	1	...	...	...	...
{ Muzaffarpur ... ..	...	...	1	...	2	2	...	...	...	...
Sitamarhi	...	...	...	...	...	...	...	...	...	...
{ Hajipur ... ..	...	...	...	...	1	1	...	...	...	...
{ Lalganj ... ..	...	...	...	...	...	1	...	...	...	...
{ Darbhanga ... ..	1	...	...	...	2	2	...	...	...	...
{ Roserah ... ..	...	...	...	...	1	1	...	...	...	...
{ Samastipur ... ..	...	...	...	...	1	1	...	...	...	...
{ Madhubani ... ..	...	...	...	...	1	1	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...

*Table showing health services in Rural and Urban areas*

Rural areas.												
District Board.			Medical officers of Health.				Epidemic staff.	Sanitary and Health Inspectors.	Vaccinators.		School Medical officers.	Other Health staff.
			Holding D. P. H.		Licentiates L. M. P.				Male.	Female.		
			Whole time.	Part time.	Whole time.	Part time.						
1			2	3	4	5	6	7	8	9	10	11
Monghyr	...	...	...	...	...	...	8	3	14	...	...	59
Bhagalpur	...	...	1	...	...	...	24	4	65	...	...	2
Purnea	...	...	1	...	...	...	38	17	106	...	1	1
Santal Parganas	...	...	...	...	...	...	2	...	14	1	...	...
Bhagalpur Division	...	...	...	...	...	...	...	...	...	...	2	...
Hazaribagh	...	...	...	...	...	...	3	1	50	...	...	8
Ranchi	...	...	...	...	...	...	...	...	8	...	...	...
Palamau	...	...	...	...	...	...	3	...	26	...	...	...
Manbhum	...	..	1	...	...	...	5	2	42	...	...	...
Singhbhum	...	...	...	...	...	...	...	...	2	...	...	...
Chota Nagpur Division	...	...	...	...	...	...	...	...	...	...	2	...



*of Bihar Province during the year 1936—concl'd.*

[illegible]

APPENDIX VI.

Table showing maternity and child welfare centres, health visitors and trained midwives in rural and urban areas in Bihar during 1936.

District.	Maternity and child welfare.												Remarks.
	Centres maintained by—						Trained visitors.		Trained midwives.		Trained dais.		
	Government.		Local and municipal bodies.		Other agencies.								
	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Patna ...	...	6(a)	...	1(a)	...	3	...	4(b)	...	7	...	3	(a) Midwife r y circles. (b) Incl u d i n g one Maternity Super v i s o r entertained by Government.
Muzaffarpur ...	...	...	...	...	...	1	...	1	...	...	...	...	
Darbhanga ...	...	...	...	1(a)	...	...	...	...	...	1	...	...	
Monghyr ...	...	...	...	...	...	1	...	1	...	...	...	1	
Manbhum ...	...	...	...	1(a)	4	...	...	...	4	2	...	...	
Banchi ...	...	...	...	1(a)	...	1	...	1	...	2	...	...	
Total ...	...	6	...	4	4	6	...	7	4	12	...	4	



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STATEMENT No. 1.

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## STATEMENT NO. I.—Showing particulars of Vaccination in the

Number.	District.				Population of district according to the census of 1931.	Average number of vaccinators employed throughout the season.	Total number of persons vaccinated.			Average number of persons vaccinated by each vaccinator.	Primary.		
							Male.	Female.	Total.		Total.		
1	2				3	4	5	6	7	8	9		
<i>Patna Division.</i>													
1	Patna	...	...	District excluding towns	...	1,846,474	{	89	40,359	31,879	72,238	812	60,380
				Towns									
2	Gaya	...	..	District excluding towns	...	2,388,462	{	95	48,245	38,832	87,077	916	73,960
				Towns									
3	Shahabad	...	...	District excluding towns	...	1,993,489	{	122	38,630	28,074	66,704	547	55,573
				Towns									
Total of Patna Division					{	6,228,425	{	306	127,234	98,785	226,019	739	189,913
					{		{	24	17,645	10,479	28,124	1,172	14,899
<i>Tirhut Division.</i>													
4	Saran	...	...	District excluding towns	...	2,486,468	{	88	52,864	40,328	93,192	1,059	78,600
				Towns									
5	Champan	...	...	District excluding towns	...	2,145,687	{	78	44,097	35,284	79,381	1,018	66,382
				Towns									
6	Muzaffarpur	...	...	District excluding towns	...	2,941,025	{	39	83,638	65,681	149,319	3,829	109,926
				Towns									
7	Darbhanga	...	...	District excluding towns	...	3,166,094	{	96	72,116	57,423	129,539	1,349	104,641
				Towns									
Total of Tirhut Division					{	10,739,274	{	301	252,715	198,716	451,431	1,500	359,549
					{		{	17	11,460	7,388	18,848	1,109	8,028
<i>Bhagalpur Division.</i>													
8	Monghyr	...	...	District excluding towns	...	2,287,154	{	62	78,010	45,481	123,491	1,091	56,973
				Towns									
9	Bhagalpur	...	...	District excluding towns	...	2,234,632	{	34	86,329	56,454	142,783	4,199	65,469
				Towns									
10	Purnea	...	...	District excluding towns	...	2,186,543	{	106	78,931	47,656	126,587	1,194	58,679
				Towns									
11	Santal Parganas	...	...	District excluding towns	...	2,051,472	{	72	42,450	30,094	72,544	1,007	46,261
				Towns									
Total of Bhagalpur Division.					{	8,759,801	{	274	285,720	179,685	465,405	1,700	227,402
					{		{	15	13,447	6,849	20,296	1,353	7,430



tracts of Bihar and Orissa during the year 1936-37.

Vaccination.				Re-vaccination.			Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Total cost of Vaccination Department.	Number of all successful vaccinations and re-vaccinations performed by the vaccination staff only.	Average cost of each successful cases performed by the vaccination staff.	
Successful.				Total.	Successful.	Unknown.	Primary.	Re-vaccination.					
Under one year.	One year and under six years.	Total of all ages.	Unknown.										
10	11	12	13	14	15	16	17	18	19	20	21	22	
										Rs. a. p.		Rs. a. p.	
1,320	11,773	60,258	71	11,858	4,684	3,748	99.91	57.75	}	40.82	3,048 0 0	75,369	0 0 7
1,917	4,131	6,171	420	10,361	3,808	2,601	92.36	49.07					
13,988	56,412	72,275	1,341	13,117	5,514	5,842	99.53	75.79	}	34.18	1,451 15 6	81,627	0 0 4
1,877	792	2,677	3	642	292	54	99.15	49.66					
15,371	27,697	54,669	203	11,131	7,209	1,015	98.73	71.26	}	34.34	925 0 0	68,454	0 0 2
1,794	1,562	5,051	44	2,222	1,054	557	100.00	100.00					
30,679	95,682	187,202	1,615	36,108	17,407	10,605	99.43	68.26	}	36.20	5,424 15 6	225,450	0 0 5
5,588	6,485	13,899	467	13,225	5,154	3,212	96.30	51.47					
11,300	58,936	76,787	1,145	14,592	4,714	4,312	99.14	45.85	}	33.77	1,680 8 9	83,959	0 0 4
773	739	1,531	13	1,233	561	247	98.46	57.48					
11,958	52,363	65,245	328	12,999	4,169	4,381	98.77	48.37	}	33.61	659 15 3	72,131	0 0 2
550	757	1,311	6	1,598	791	354	98.27	63.58					
20,083	88,690	109,197	238	39,393	15,178	10,860	99.55	53.47	}	43.76	2,953 2 3	128,704	0 0 4
452	2,083	2,563	7	5,682	1,324	2,733	98.88	44.88					
17,420	86,714	104,269	103	24,898	9,103	8,924	99.76	56.98	}	36.99	1,311 2 3	117,123	0 0 3
638	1,847	2,486	5	2,319	673	557	98.88	38.19					
60,831	236,703	355,498	1,814	91,862	33,164	28,477	99.17	52.30	}	37.42	6,604 12 6	401,917	0 0 3
2,413	5,426	7,891	31	10,822	3,349	3,890	98.70	48.31					
13,983	42,757	56,828	8	66,518	1,224	63,224	99.76	37.11	}	26.06	4,847 12 0	59,603	0 1 3
556	655	1,213	1	3,075	338	1,375	96.27	19.41					
32,264	32,671	65,170	97	77,294	39,221	21,193	99.66	69.91	}	50.30	4,473 14 0	112,402	0 0 8
910	2,727	3,707	6	5,205	2,026	1,102	100.00	49.35					
17,751	33,410	53,492	3,120	67,908	8,159	55,503	96.23	15.63	}	29.05	5,456 4 6	63,525	0 1 4
398	653	1,000	14	1,800	712	409	93.46	51.18					
21,727	22,417	44,270	1,456	26,283	1,741	23,225	98.80	56.93	}	24.25	8,896 8 6	49,747	0 2 10
572	669	1,265	61	2,786	742	645	96.49	36.22					
65,745	191,255	219,760	4,681	238,003	50,345	163,145	98.67	67.25	}	32.57	23,674 7 0	285,277	0 1 4
2,382	4,704	7,185	82	12,866	3,818	3,731	97.78	41.79					

## STATEMENT NO. I.—Showing particulars of Vaccination in t

Number.	District.	Population of district according to the census of 1931.	Average number of vaccinators employed throughout the season.	Total number of persons vaccinated.			Average number of persons vaccinated by each vaccinator.	Total.	Primary.
				Male.	Female.	Total.			
1	2	3	4	5	6	7	8	9	
<i>Chota Nagpur Division.</i>									
12	Hazaribagh ...	{ District excluding towns ... } { Towns ... }	{ 44 3 }	30,468 1,602	23,617 987	54,085 2,589	1,229 863	38,511 1,377	
13	Ranchi ...	{ District excluding towns ... } { Towns ... }	{ 48 5 }	28,829 5,126	24,355 2,912	53,184 8,038	1,108 1,603	37,255 2,141	
14	Palamu ...	{ District excluding towns ... } { Towns ... }	{ 32 1 }	19,198 940	13,143 537	32,340 1,477	1,011 1,477	19,077 54	
15	Manbhum ...	{ District excluding towns ... } { Towns ... }	{ 78 5 }	56,934 4,130	42,575 2,097	99,509 6,227	1,276 1,345	48,231 1,811	
16	Singhbhum ...	{ District excluding towns ... } { Towns ... }	{ 26 8 }	19,567 29,862	14,112 19,836	33,679 49,698	1,285 6,212	13,877 5,201	
Total of Chota Nagpur Division.		{ District excluding towns ... } { Towns ... }	{ 228 23 }	154,998 41,660	117,801 26,369	272,797 68,039	1,196 3,092	162,000 11,081	
Total of Vaccine Department.		{ District excluding towns ... } { Towns ... } { Total ... }	{ 1,109 78 1,187 }	830,665 84,212 904,877	594,987 51,085 646,072	1,415,653 135,297 1,550,940	1,276 1,734 1,307	938,871 41,441 980,312	
Jails ...		...	...	27,442	766	28,208	...	912	
Cantonments ...		...	...	195	187	382	...	356	
Total of dispensary staff		...	...	...	...	...	...	...	
Total of private medical practitioners		...	...	...	...	...	...	...	
Total of Railway Dispensary		...	...	735	287	1,022	...	262	
Cooly Depot ...		...	...	1,059	809	1,867	...	466	
Total of Colliery		...	...	1,415	2,220	3,635	...	1,430	
Grand Total		...	...	925,402	651,341	1,536,143	...	983,735	



istricts of Bihar during the year 1936-37—conclcd.

Vaccination.				Re-vaccination.			Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Total costs of Vaccination Department.	Number of all successful vaccinations and revaccinations performed by the vaccination staff only.	Average cost of each successful cases performed by the vaccination staff.
Successful.				Total.	Successful.	Unknown.	Primary.	Revaccination.				
Under one year.	One year and under six years.	Total of all ages.	Unknown.									
10	11	12	13	14	15	16	17	18	19	20	21	22
										Rs. a. p.		Rs. a. p.
16,828	21,507	38,383	14	15,569	5,780	7,041	99·70	67·77	31·51	4,354 12 0	47,821	0 1 5
589	702	1,290	59	1,215	365	485	93·09	50·00				
30,631	8,404	37,152	62	15,929	9,915	2,337	99·89	72·95	31·32	5,871 15 10	52,031	0 1 10
1,270	471	1,805	336	5,897	2,494	1,639	100·00	58·57				
8,482	7,593	18,530	408	13,261	6,577	3,617	99·24	68·20	32·72	3,267 15 6	23,785	0 2 0
228	243	547	...	930	419	119	100·00	51·66				
3,519	32,883	46,937	893	51,228	24,129	12,513	99·15	62·32	41·52	6,501 4 3	75,133	0 1 5
392	1,273	1,724	46	4,408	1,727	758	97·24	47·31				
1,447	6,599	18,459	236	14,802	8,988	3,182	99·02	77·35	38·50	3,381 1 9	35,802	0 1 6
1,883	1,389	3,550	1,042	41,491	4,609	11,021	85·23	13·77				
10,853	74,983	159,511	1,613	110,789	55,369	28,690	99·45	68·30	35·77	23,377 1 4	237,672	0 1 7
4,361	4,078	8,916	1,483	56,941	9,614	14,022	92·82	18·17				
53,088	526,826	921,971	9,723	476,780	156,305	230,917	99·23	63·57	35·53	59,081 4 4	1,150,316	0 0 10
14,744	20,693	37,891	2,063	93,654	21,935	24,855	96·22	31·79				
72,832	559,519	959,863	11,783	570,634	178,240	255,772	99·10	56·61				
6	6	540	105	27,296	9,327	6,735	66·91	45·36	...	...	...	...
250	81	331	2	32	11	4	95·11	39·30	..	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
87	89	240	18	810	175	266	98·36	32·17	...	...	...	...
152	93	402	64	1,401	7	1,378	100·00	30·43	...	...	...	...
139	354	745	249	2,235	436	87	63·08	20·30	...	...	...	...
73,466	560,143	963,120	12,224	602,408	183,196	264,242	99·03	55·65	35·53	59,081 4 4	1,150,316	0 0 10

## SUMMARY.

	Total number of persons vaccinated.		Total number of operations performed.		Percentage of successful cases in which the results were known.		Average number of persons vaccinated by each vaccinator.		Number of children successfully vaccinated.		Ratio of successful vaccinations per 1,000 of population.	Total cost of Vaccination Department.	Average cost of each successful case.
	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Vaccinators employed.	Persons vaccinated by each vaccinator.	Under one year.	One and under 6 years.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
BY SPECIAL STAFF.												Rs. a. p.	Rs. a.
Statement (I) ...	980,315	570,634	980,315	570,634	99.10	53.61	1,167	1,307	272,832	559,519	35.53	59,081 4 4	0 0
BY OTHER AGENCIES.													
Colleges, Dispensaries and Leper Asylum, Cooly Depot, Jails and Cantonments.	3,420	31,774	3,420	31,774	75.72	42.72	...	...	634	623			
Total ...	983,735	602,408	983,735	602,408	99.03	56.65	1,187	1,307	273,466	560,142	35.53	59,081 4 4	0 0



*Comparative statement no. II.—Showing the percentage of persons primarily vaccinated to the total number of vaccinations performed in the Province of Bihar in each of the undermentioned official years.*

Establishments.	Years.									
	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
1	2	3	4	5	6	7	8	9	10	11
Government staff ...	25'46	14'13	7'36	9'56	9'99	...	4'02	5'22	17'3	...
Dispensaries ...	29'76	...	14'75	9'45	75'00	14'06	58'56	24'94	48'21	24'44
Municipal ...	62'34	73'47	71'71	64'03	67'13	39'88	29'00	33'07	22'57	30'63
District Board ...	52'10	60'14	67'12	70'70	64'30	38'61	17'94	42'69	61'90	68'32
Licensed vaccinators ..	93'21	97'60	97'59	92'75	97'29	90'97	81'19	70'93	...	...
Rails and collieries ...	29'82	34'22	35'25	34'23	28'78	21'47	9'04	5'97	12'12	39'15
Jails ...	1'09	1'49	1'34	1'11	0'78	2'20	0'89	1'33	4'86	3'23
Cooly Depot ...	1'26	2'31	0'51	0'45	1'42	7'29	5'07	3'09	11'17	24'96
Cantonment ...	36'49	...	93'08	69'21	94'03	53'81	73'73	60'81	80'06	91'62

## STATEMENT NO. III.--Showing particulars of vaccination

District.	Total number of persons vaccinated.		Total number inspected—								Percentage of	
			By Assistant Directors of Public Health or Superintendent of Vaccination.				By Native Superintendents or other Inspecting Officers.				By Assistant Director or Superintendent	
			Assistant Directors of Public Health.		Superintendent of vaccination.		District Inspectors and Health Inspectors.		Sub-Inspectors.		Assistant Directors of Public Health.	
	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
1	2	3	4	5	6	7	8	9	10	11	12	13
Patna ...	67,958	23,693	2,783	2,211	3,403	...	11,941	...	...	...	4'09	9'33
Gaya ...	76,663	14,796	4,154	2,533	1,603	1,201	5,474	...	...	...	5'42	17'11
Shahabad ...	60,728	18,571	2,984	1,122	2,570	103	4,481	693	...	...	4'91	6'04
Saran ...	80,168	16,514	1,476	479	564	241	9,049	142	...	...	1'84	2'90
Champanan ...	67,722	15,981	740	205	3,489	1,384	40,378	3,434	...	...	1'09	1'28
Muraffarpur ...	112,525	46,649	4,779	3,752	12,892	...	36,712	349	...	...	4'24	8'04
Darbhanga ...	107,915	27,736	401	1,013	2,231	13	40,143	49	...	...	0'37	3'65
Monghyr ...	58,334	69,593	...	...	1,158	...	7,804	...	14,918	20	...	...
Bhagalpur ...	69,212	87,206	7	1,054	7,540	3,987	20,045	15,666	...	...	0'01	1'31
Purnea ...	59,763	70,397	...	...	2,311	4,178	11,859	2,107	21,384	8,715	...	...
Santal Parganas ...	47,883	84,275	3,457	...	1,119	...	6,562	56	14,154	1,550	7'22	...
Hazaribagh ...	41,324	21,337	2,792	...	1,201	1	2,131	3	6,097	75	6'75	...
Ranchi ...	39,523	22,803	1,969	...	51	809	7,626	225	17,567	781	4'98	...
Palamau ...	19,923	15,694	2,594	1,440	868	15	2,971	...	3,357	188	13'02	9'17
Manbhum ...	50,100	57,152	1,671	...	1,756	1,805	16,078	7,116	2,333	875	3'33	...
Singhbhum ...	24,084	60,011	1,004	...	553	2	717	...	2,503	504	4'17	...
TOTAL ...	983,735	602,408	30,811	13,808	43,309	13,739	226,001	29,840	82,313	12,708	3'13	2'29



verified by Inspecting Officers during the year 1936-37.

Inspection to total number vaccinated.						Percentage of cases found successful to total number inspected.								Percentage of successful cases reported by vaccinator.	
By Assistant Directors of Public Health or Superintendent of Vaccination.		By Native Superintendents or other Inspecting Officers.				By Assistant Directors of Public Health or Superintendent of Vaccination.		By Native Superintendents or other Inspecting Officers.							
Superintendent of Vaccination.		District Inspectors and Health Inspectors.	Sub-Inspectors.			Assistant Directors of Public Health.	Superintendent of Vaccination.	District Inspectors and Health Inspectors.	Sub-Inspectors.						
Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
5.01	...	17.57	...	...	...	96.40	...	0.25	...	15.80	...	...	...	98.30	38.40
2.09	8.12	7.94	...	...	...	99.30	...	100.00	100.00	90.87	...	...	...	98.89	52.81
4.23	0.55	7.38	3.73	...	...	96.60	...	99.23	...	89.49	43.72	...	...	99.05	42.85
0.70	1.46	11.29	0.88	...	...	98.85	98.95	96.45	18.25	95.22	97.18	...	...	97.50	32.30
5.15	8.06	59.62	21.49	...	...	100.00	99.02	99.40	44.44	99.55	33.25	...	...	97.83	47.14
11.46	...	54.40	0.75	...	...	99.79	99.36	99.65	...	99.14	41.63	...	...	99.30	30.50
2.07	0.05	37.20	0.18	...	...	99.25	100.00	99.28	69.23	99.25	77.55	...	...	99.31	35.87
1.98	...	13.40	...	25.61	0.03	...	...	100.00	...	100.00	...	98.17	25.60	99.66	2.24
10.89	4.57	28.96	17.96	...	...	100.00	98.57	97.54	62.31	75.01	52.38	...	...	99.57	50.74
5.86	5.95	19.69	2.98	35.78	12.37	...	...	95.24	5.21	97.89	33.69	98.63	13.67	91.01	12.82
2.33	...	13.70	0.16	29.55	4.55	95.94	...	99.28	...	98.84	19.64	92.29	22.57	95.59	11.57
2.90	0.004	5.15	0.01	14.75	0.35	93.11	...	69.16	100.00	95.40	...	95.21	45.53	77.83	34.67
0.13	3.55	10.29	0.99	44.45	3.42	96.89	...	100.00	72.68	99.67	58.22	98.42	83.74	99.73	62.54
4.36	0.09	14.91	...	16.85	1.20	96.10	...	98.04	18.00	96.63	...	95.08	62.77	97.20	49.29
3.50	3.16	32.09	12.45	4.66	1.53	93.88	...	98.67	53.90	96.85	58.18	96.01	65.83	99.40	44.64
2.30	0.003	2.97	...	10.39	0.84	94.51	...	88.43	100.00	87.31	...	94.65	79.96	91.36	92.98
4.40	2.28	22.97	4.95	8.37	2.11	97.27	42.90	92.92	43.84	91.81	50.75	96.92	26.21	96.38	40.08

STATEMENT NO. II.--Showing side by side the ratios per mille of population of

District.	1927-28.		1928-29.		1929-30.		1930-31.	
	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.
1	2	3	4	5	6	7	8	9
Patna ...	1.07	45.78	0.49	33.32	0.40	28.34	0.23	25.86
Gaya ...	1.21	25.92	0.30	27.20	0.27	30.24	0.56	30.79
Shahabad ...	1.60	31.64	0.37	24.90	0.16	23.68	0.32	23.65
Saran ...	0.75	36.49	0.19	36.99	0.19	41.23	0.17	33.68
Champanan ...	0.24	23.24	0.07	23.84	0.10	24.51	0.06	20.98
Muzaffarpur ...	0.56	37.26	0.18	35.52	0.25	36.18	0.06	34.63
Darbhanga ...	0.34	39.22	0.16	36.36	0.12	37.63	0.18	35.54
Monghyr ...	0.93	36.65	0.53	38.29	0.45	35.86	0.42	30.35
Bhagalpur ...	1.13	40.63	0.45	38.32	0.16	35.17	0.08	34.53
Purnea ...	0.95	25.03	0.65	23.77	0.18	22.20	0.08	21.38
Santal Parganas ...	1.06	36.28	0.46	34.28	0.20	31.32	0.36	34.28
Hazaribagh ...	0.73	38.77	0.30	38.74	0.15	35.92	0.13	36.81
Ranchi ...	0.39	43.34	0.24	40.73	0.08	40.80	0.04	55.24
Palamanu ...	1.01	30.57	1.35	30.66	0.95	30.67	0.43	33.58
Manbhum ...	0.17	45.66	0.06	38.51	0.05	35.79	0.13	38.93
Singhbhum ...	0.13	28.59	0.12	27.58	0.11	29.46	0.27	35.62
Total ...	0.78	35.41	0.40	32.25	0.21	32.80	0.21	32.20



*deaths from small-pox and the ratios of successful vaccinations per mille of population during the ten years ending 1936-37.*

1931-32.		1932-33.		1933-34.		1934-35.		1935-36.		1936-37.	
Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.
10	11	12	13	14	15	16	17	18	19	20	21
0.30	26.19	0.68	41.13	0.56	35.65	0.24	41.63	0.37	52.04	0.42	40.82
0.29	25.96	1.15	41.84	1.96	37.20	0.58	36.12	0.57	35.75	0.69	34.18
0.53	25.31	1.20	29.36	1.12	26.07	0.39	20.97	1.34	29.97	1.08	34.34
0.34	52.43	1.29	39.63	1.18	47.99	0.14	23.31	0.19	28.32	0.48	33.77
0.12	20.44	0.85	27.41	1.06	31.13	0.20	32.33	0.29	37.96	0.11	33.61
0.06	31.32	0.37	37.23	0.77	49.18	0.15	50.36	0.17	47.32	0.09	43.76
0.17	32.47	0.44	37.89	0.45	34.29	0.26	41.68	0.34	41.93	0.24	36.99
0.16	28.85	0.57	32.96	1.33	31.44	0.70	30.28	1.03	28.53	0.79	26.06
0.07	34.15	0.41	37.20	1.06	47.24	0.51	47.09	0.91	61.72	0.48	50.30
0.05	19.67	0.24	24.55	1.44	36.84	2.55	41.36	2.16	38.87	1.43	29.05
0.25	30.05	0.27	33.04	0.33	30.22	0.57	28.19	0.74	27.03	1.09	24.25
0.10	33.96	0.07	34.05	0.59	38.83	0.81	34.12	0.79	31.71	0.27	31.51
0.05	35.04	0.46	49.73	0.41	36.95	0.10	34.07	0.03	30.94	0.05	31.32
0.23	37.35	0.31	23.96	0.51	28.68	0.54	33.07	0.72	31.87	0.89	32.72
0.05	30.53	0.02	32.57	0.16	35.58	0.18	35.82	0.41	44.66	0.53	41.52
0.14	25.28	...	22.71	0.39	37.41	0.59	35.29	0.62	58.38	0.80	38.50
0.18	28.99	0.57	34.67	0.89	37.24	0.52	35.57	0.65	39.23	0.56	35.53

STATEMENT NO. V.--Showing the protection afforded to infants in each town in the Province of Bihar during the year 1936-37.

District.	Towns.	Number of births during the year ending 31st March 1937.	Number of deaths amongst infants under one year during the year ending 31st March 1937.	Number of successful vaccinations amongst infants under one year during the year ending 31st March 1937.	Date of extension of Vaccination Act to town.
1	2	3	4	5	6
Patna	Patna	3,418	489	1,200	1st October 1884.
	Bihar	722	90	406	1st April 1887.
	Dinapur	684	114	444	28th January 1891.
	Barh	378	42	74	1st April 1887.
	Khagole	176	84	43	12th July 1910.
	Total	5,378	819	2,167	
Gaya	Gaya	2,725	736	1,545	1st January 1883.
	Tikari	238	37	291	3rd January 1891.
	Daudnagar	469	65	228	Ditto.
	Total	3,432	838	2,064	
Shahabad	Arrah	551	46	889	20th July 1885.
	Buxar	355	40	143	1st April 1887.
	Dumraon	243	14	87	Ditto.
	Jagadispur	201	11	103	20th December 1890.
	Sassaram	621	44	517	1st April 1887.
	Bhabhua	181	9	55	Ditto.
	Total	2,152	164	1,794	
Total of Patna Division.		10,962	1,821	6,025	
Saran	Chapra	1,406	205	161	1st April 1887.
	Revelganj	331	49	373	12th December 1890.
	Siwan	451	57	239	1st April 1887.
	Total	2,188	311	773	
Champaran	Motihari	350	38	166	1st April 1887.
	Bettiah	1,031	106	384	Ditto
	Total	1,881	144	550	



STATEMENT NO. V.—Showing the protection afforded to infants in each town in the Province of Bihar during the year 1936-37—contd.

District.	Towns.	Number of births during the year ending 31st March 1937.	Number of deaths amongst infants under one year during the year ending 31st March 1937.	Number of successful vaccinations amongst infants under one year during the year ending 31st March 1937.	Date of extension of Vaccination Act to town.
1	2	3	4	5	6
Muzaffarpur	Muzaffarpur ...	943	154	283	1st January 1886.
	Sitamarhi ...	317	54	37	1st April 1887.
	Hajipur ...	685	127	96	1st May 1890.
	Lalganj ...	323	28	36	1st April 1887.
	Total ...	2,268	363	452	
Darbhanga	Darbhanga ...	1,890	248	431	24th May 1884.
	Roserah ...	240	23	33	3rd January 1891.
	Samastipur ...	203	30	32	25th July 1910.
	Madhubani ...	434	47	142	1st April 1887.
	Total ...	2,767	348	638	
	Total of Tirhut Division.	9,104	1,166	2,413	
Monghyr	Monghyr ...	1,500	169	407	15th November 1882.
	Jamalpur ...	1,058	118	149	Ditto.
	Total ...	2,558	287	556	
Bhagalpur	Bhagalpur ...	1,642	260	866	15th February 1884, withdrawn on 16th October 1895 ; re-extended on 18th August 1898.
	Colgong ...	162	46	50	Ditto, re-extended on 19th December 1901.
	Total ...	1,804	306	916	
Purnea	Purnea ...	305	40	146	1st July 1887.
	Kishanganj ...	181	31	106	12th November 1892.
	Katihar ...	136	17	68	8th August 1910.
	Forbesganj ...	152	41	18	9th August 1912.
	Total ...	774	129	338	

STATEMENT NO. V.—Showing the protection afforded to infants in each town in the Province of Bihar during the year 1936-37—concl'd.

District.	Towns.	Number of births during the year ending 31st March 1937.	Number of deaths amongst infants under one year during the year ending 31st March 1937.	Number of successful vaccinations amongst infants under one year during the year ending 31st March 1937.	Date of extension of Vaccination Act to town.
1	2	3	4	5	6
Santal Parganas ...	Sahibganj ...	146	19	152	1st May 1884.
	Deoghar ...	87	9	184	Ditto.
	Madhupur ...	80	8	108	22nd August 1910.
	Dumka ...	94	7	128	Notifications, dated the 9th April 1884, and 23rd August 1910.
	Total ...	407	43	572	
	Total of Bhagalpur Division.	5,543	765	2,382	
Hazaribagh ...	Hazaribagh ...	375	87	238	1st January 1885.
	Chatra ...	199	24	158	1st August 1885.
	Giridih ...	238	19	192	8th September 1910.
	Total ...	812	80	588	
Ranchi ...	Ranchi ...	590	39	1,061	1st April 1887.
	Lohardaga ...	171	18	183	25th June 1882.
	Total ...	761	57	1,244	
Palamau ...	Daltonganj ...	215	19	228	9th October 1890.
Manbhum ...	Purulia ...	561	39	282	1st January 1887.
	Raghunathpur ...	190	23	19	9th February 1894.
	Jhalda ...	232	25	79	9th July 1892.
	Dhanbad ...	366	24	12	5th December 1918.
	Total ...	1,349	111	392	
Singhbhum ...	Chaibassa ...	273	43	158	20th June 1892.
	Chakradharpur ...	182	29	98	13th January 1919
	Jugsalai ...	268	21	149	1st April 1924.
	Jamshedpur ...	289	32	1,478	
	Total ...	1,012	125	1,883	
	Total of Chota Nagpur Division.	4,149	503	4,727	
	Total for the Province	29,758	4,255	15,547	



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ANNEXURE II.

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*Provincial Statement showing the different kinds of lymph*

District.	Primary vaccination.											
	Direct from the calf.					With lanoline or glycerine lymph.					Arm-to-arm.	
	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.
1	2	3	4	5	6	7	8	9	10	11	12	13
Patna ...	...	...	...	...	...	67,958	66,834	587	537	98·34	...	...
Gaya ...	...	...	...	...	...	76,663	74,952	367	1,344	97·77	...	...
Shahabad ...	...	...	...	...	...	60,728	59,780	701	247	98·42	...	...
Saran ...	...	...	...	...	...	80,168	78,318	692	1,158	97·69	...	...
Champanan ...	...	...	...	...	...	67,722	66,556	832	334	98·28	...	...
Muzaffarpur ...	...	...	...	...	...	112,525	111,760	520	245	99·32	...	...
Darbhanga ...	...	...	...	...	...	107,915	107,174	555	186	99·31	...	...
Monghyr ...	...	...	...	...	...	58,234	58,041	184	9	99·66	...	...
Bhagalpur ...	...	...	...	...	...	69,212	68,882	226	104	99·67	...	...
Purnea ...	...	...	...	...	...	59,763	54,492	2,137	3,134	91·18	...	...
Santal Parganas ...	...	...	...	...	...	47,893	45,753	591	1,559	95·11	...	...
Hazaribagh ...	...	...	...	...	...	41,324	40,422	580	322	77·82	...	...
Ranchi ...	...	...	...	...	...	39,523	39,084	41	398	98·89	...	...
Palamau ...	...	...	...	...	...	19,923	19,352	141	430	97·13	...	...
Manbhum ...	...	...	...	...	...	50,100	48,711	450	939	97·22	...	...
Singhbhum ...	...	...	...	...	...	24,084	22,009	797	1,278	91·38	...	...
Total ...	...	...	...	...	...	983,735	962,120	9,391	12,224	97·80	...	...



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ed and their rates of success during the year 1936-37.

Re-vaccination.																	
Vaccination.			Direct from the calf.					With lanoline or glycerine lymph.					Arm-to-arm vaccination.				
Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
...	...	...	...	...	...	...	...	23,693	8,535	7,452	7,706	36.03	...	...	...	...	...
...	...	...	...	...	...	...	...	14,796	6,675	2,154	5,967	45.11	...	...	...	...	...
...	...	...	...	...	...	...	...	18,571	8,674	6,252	3,645	46.71	...	...	...	...	...
...	...	...	...	...	...	...	...	16,514	5,641	5,205	4,668	34.16	...	...	...	...	...
...	...	...	...	...	...	...	...	15,981	5,575	5,510	4,896	34.90	...	...	...	...	...
...	...	...	...	...	...	...	...	46,649	16,944	15,800	13,845	36.32	...	...	...	...	...
...	...	...	...	...	...	...	...	27,736	9,949	8,102	9,685	35.87	...	...	...	...	...
...	...	...	...	...	...	...	...	69,593	1,562	3,432	64,599	2.24	...	...	...	...	...
...	...	...	...	...	...	...	...	87,206	43,520	21,024	22,662	67.42	...	...	...	...	...
...	...	...	...	...	...	...	...	70,397	9,033	5,299	56,065	12.83	...	...	...	...	...
...	...	...	...	...	...	...	...	34,275	3,994	4,655	25,626	11.65	...	...	...	...	...
...	...	...	...	...	...	...	...	21,337	7,399	6,262	7,676	34.67	...	...	...	...	...
...	...	...	...	...	...	...	...	22,803	12,997	5,662	4,144	56.99	...	...	...	...	...
...	...	...	...	...	...	...	...	15,694	7,433	3,529	4,732	47.36	...	...	...	...	...
...	...	...	...	...	...	...	...	57,152	26,472	17,072	13,603	46.32	...	...	...	...	...
...	...	...	...	...	...	...	...	60,011	13,793	31,500	14,718	22.98	...	...	...	...	...
...	...	...	...	...	...	...	...	602,408	188,196	149,970	264,242	31.24	...	...	...	...	...





No. 1878-L. S.-G.

GOVERNMENT OF BIHAR.

LOCAL SELF-GOVERNMENT DEPARTMENT.

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R E S O L U T I O N .

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*Patna, the 12th April 1938.*

READ—

The Public Health Report for the year 1936 and the Vaccination Report for the year 1936-37.

1. *Vital statistics.*—The total number of births during the year rose from 1,108,571 in the previous year to 1,144,008 in the year under review. The total number of deaths decreased from 786,710 to 701,813 due chiefly to fewer deaths from Cholera and fever. The excess of birth over the death rate was 13·6 as compared with 9·9 in the previous year. Registration of vital occurrences is compulsory only in the municipal area. A certain percentage of the vital occurrences was investigated and verified by the officers of the Public Health Department. An attempt has been made in recent years to transfer the responsibility of collection, tabulation and verification of vital occurrences to the bigger municipalities and experience shows that the municipal statistics are more reliable than those collected by the Police. With the increasing number of health officers employed by municipalities, more of them will be in a position to undertake this work.

2. *Infant mortality.*—The rate of infant mortality rose from 116·6 in 1935 to 118·0 per thousand on the basis of actual births recorded during the year. The attention of the local bodies is again drawn to the importance of organising maternity and child welfare work in their areas which is the only effective step that can be taken to reduce child mortality. Some municipalities maintain midwives. It is also gratifying to note that some of the district boards have realised the importance of training indigenous *dais* and have taken up the work. The maternity centres rendered useful aid to the public.

3. *Cholera.*—The total number of deaths from Cholera decreased from 57,136 last year to 6,070 during the year under report and the corresponding death rate from 1·8 to 0·2. The districts of Manbhum, Santal Parganas and Hazaribagh and the towns of Deoghar, Purulia and Jhalda recorded highest number of deaths. To assist the local bodies in combating the disease Government deputed Doctors on epidemic duty to the cholera infected areas and disinfectants and cholera vaccine were distributed by the Public Health Department. The number of doses of cholera vaccine issued by that Department during the year was 288,930 against 945,665 of the previous year, the decrease is attributed to lesser incidence of the disease during the year as compared with the year before. An extensive use of choleraphage seems to be responsible for reducing the demand for cholera vaccine.

4. *Bacteriophage.*—102,830 phials of choleraphage of 50 c. c. were prepared during the year in the Bacteriophage laboratory at Patna and 81,106 phials were distributed to various towns and districts. During the cholera epidemic the use of choleraphage remarkably reduced the cholera mortality. To demonstrate the possibility of using phage as prophylactic in place of cholera vaccine, experiments are being made on rabbits by injecting them with phage and cholera vaccine and testing their serum. The mixture of various types of Typhoid phage was prepared and issued to the leading practitioners and the hospitals for experiment and the results are



reported to be very encouraging. The curative value of cholera-phage was accepted by the Conference of the India Research Fund Association held in Calcutta in 1936 after an examination of a series of controlled experiments which were statistically scrutinized.

5. *Small-pox*.—The number of deaths from small-pox rose from 17,433 in the previous year to 22,863 during the year under report and the corresponding death rate from 0·5 to 0·7. The lower death rate in 1935 is attributed to the immunity caused by extensive vaccinations and re-vaccinations carried out during the year 1933 when a small-pox epidemic broke out in the province. As usual the rural areas suffered more than the urban and the highest death rate was registered in the districts of Purnea and Shahabad. The districts of Ranchi, Champaran and Muzaffarpur recorded the lowest death rate. The towns of Roserah, Chaibassa and Jamalpur reported highest death rates. Primary vaccination is compulsory in all the municipal towns and also in rural areas of nine districts. In pursuance of a policy of decentralisation the control of vaccination has now been transferred to local bodies in those districts in which health organisation schemes are working, and the Government vaccination inspecting staff has been withdrawn therefrom. But in order to ensure efficiency of supervision, Government have appointed three special vaccination inspectors to work under each of the Assistant Directors of Public Health.

6. *Plague*.—The total number of deaths from plague decreased from 2,861 in the previous year to 1,244 during the year under report. The death rate was 0·04 as compared with 0·09 in the year before. Saran records the highest death rate followed by Muzaffarpur and Champaran. Necessary preventive measures were taken by the Public Health Department. Government deputed Doctors on plague duty to the affected districts and also to the Bettiah town. Anti-plague inoculations were also given. Plague again broke out in the town of Bettiah as in the past few years, taking a heavy toll of life. The question of devising means for stamping out the disease from the town is engaging the attention of Government.

7. *Dropsy*.—Beri-Beri was reported from the districts of Patna, Bhagalpur, Manbhum and Singhbhum during the year under report. Steps were taken to instruct people to avoid the use of over-polished rice and adulterated mustard oil and Ghee. In the Bhagalpur municipality pamphlets giving suitable nourishing diets, were printed and distributed. A report on epidemic dropsy in Manbhum district was received from the Director of the School of Tropical Medicine and Hygiene, Calcutta, who attributes the disease to the use of polished rice. Further investigation on the subject is being carried on.

8. *Malaria*.—The increased incidence of malaria in North Bihar is noticeable and is engaging the serious attention of Government. While Purnea has had a long history of malaria, conditions have been bad in Darbhanga and Muzaffarpur in the Tirhut Division, the outbreaks being definitely confined to the spill areas of rivers which change their course often. Bhagalpur has also fared badly in 1935 and worst in 1936. All possible measures were taken by deputing temporary doctors in the affected areas and distribution of quinine mostly from Government stock, free of cost. A more permanent method of tackling the problem on an intensive scale has since been worked out and is expected to be applied in the badly affected districts in turn.

9. *School Medical Inspection*.—Out of 9,576 boys and 485 girls examined as many as 4,140 boys and 419 girls were found to be defective or diseased. Besides minor troubles e. g., enlarged tonsils, scabies malnutrition found in most of the students, major defects of eye and heart, pulmonorary tuberculosis and leprosy were also noticed in some of them. A sincere co-operation of the parents or guardians who are kept informed of the particular defects in their wards is needed for affecting any appreciable improvements in the health of the students. The scheme for providing mid-day school lunch on a monthly fee of annas six per student which has been introduced in some schools in the Chota Nagpur Division seems to be a step in the right direction and Government hope that other schools will follow suit.



10. *Public Health Department (Engineering Branch).*—A summary of the activities of this department relating to sanitary works in areas under the jurisdiction of the local bodies during the year is appended to the report.

11. *Health Propaganda.*—The importance of this towards awakening public health conscience in the masses is clear. The Public Health Bureau continued to do useful work through distribution of pamphlets and leaflets on public health matters to local bodies and through them at fairs and festivals. Popular articles on such matters were also contributed to the local press by the Bureau. The activities had on the whole to be necessarily limited owing to the modest scale on which the Bureau is established.

12. The Office of the Director of Public Health was held by Lt.-Col. J. A. S. Phillips, C. I. E., I. M. S., from the 1st January to the 31st March and again from the 14th October to the 31st December and by Lt.-Col. S. L. Mitra, I. M. S., from the 1st April to 13th October. Government desire to thank both these officers for the efficient way in which they carried on the administration of the department and for the cordial relations which the Department maintained with the local bodies during the year. Government have also noted the names of the subordinate officers commended in the report.

By order of the Governor of Bihar,

V. K. R. MENON,  
*Secretary to Government.*

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
CHICAGO, ILL. 60637

TO THE EDITOR:  
I have the honor to acknowledge the receipt of your letter of the 10th inst. and in reply to inform you that the same has been forwarded to the proper authorities for their consideration.

I am, Sir, very respectfully,  
Yours truly,  
[Signature]

Very truly,  
[Signature]

[Faint, mostly illegible text, possibly a list or detailed correspondence, spanning the lower half of the page.]

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